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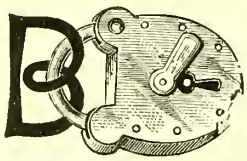

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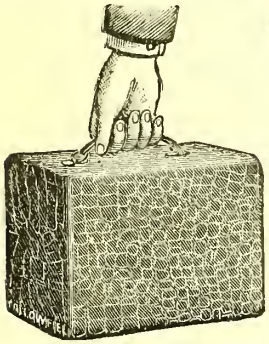

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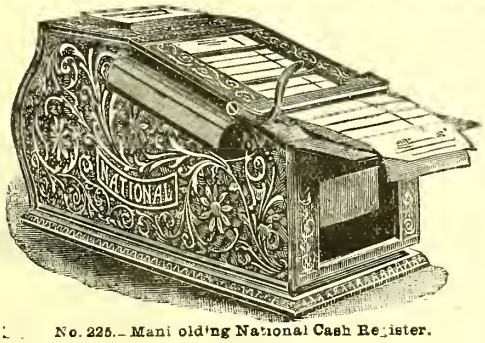

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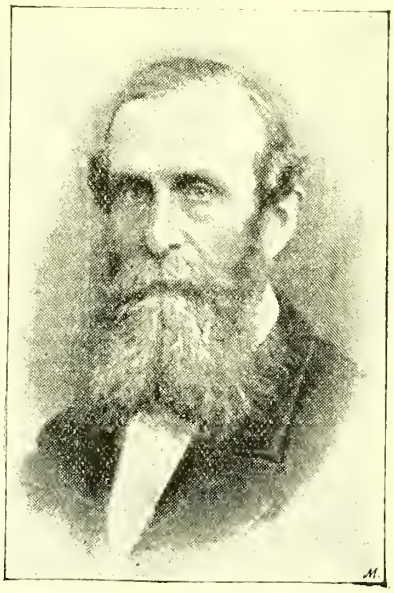

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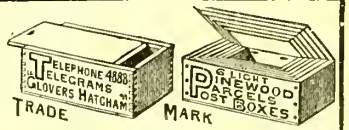

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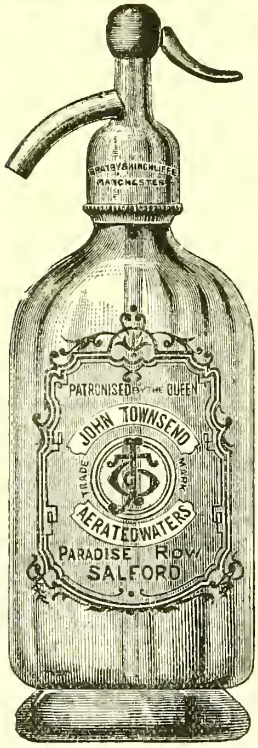

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SYPHONS ... 1/6 1/8 and 1/10 each.

SELTZOGENES.

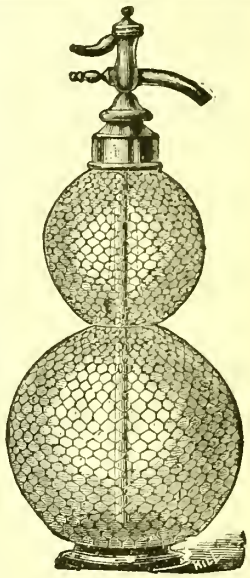
1	2	3	4	5	8 pint.
6/-	6/8	7/6	8/6	10/5	16/- each.

Including two funnels and stopper for charging.

The tops of these Seltzogenes are made of pure block tin, guaranteed.

Messrs. NOYES BROS., 43 Queen Street, Melbourne, Victoria,
Agents for Victoria, South and West Australia, and Tasmania.

All our Seltzogenes are manufactured on the well-known "Fevre" System and each one is thoroughly tested before leaving the works.



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Packing Free. **INGRAM & ROYLE** Packing Free.

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VICHY SOLE IMPORTERS OF (STATE SPRINGS) **VICHY**

ÆSCULAP, CARLSBAD, CARLSBAD SALTS, LA-BOURBOULE, ROSBACH, VALS, ETC., ETC.

NAME	Per Dozen		Original Packages			
	Bots.	½ Bots.	Bottles		½ Bottles	
Æsculap	15/-	12/-	25	30/-	50	50/-
Apollinaris	6/3	5/-	50	25/-	100	39/-
Bourboule (La)	11/-	—	50	42/-	—	—
Carlsbad	12/-	—	50	46/-	—	—
Condal	—	14/-	—	—	50	56/-
Contrexeville	9/-	—	50	35/-	—	—
Flitwick	24/-	15/-	—	—	—	—
Franz-Josef	—	12/-	—	—	50	42/-
Friedrichshall	13/-	10/-	25	25/-	50	40/-
Gerolstein	5/-	4/-	50	20/-	50	15/-
Hunyadi-Janos	15/-	13/-	25	30/-	50	50/-
Johannis-Brunnen	6/-	4/6	50	22/-	100	35/-
Kronenquelle	10/-	—	50	40/-	—	—

NAME	Per Dozen		Original Packages			
	Bots.	½ Bots.	Bottles		½ Bottles	
Levico	—	15/-	—	—	—	—
Pullna	12/-	8/-	40	36/-	40	25/-
Reginaris	5/6	4/6	50	21/-	50	17/-
Roisdorf	6/-	—	50	25/-	—	—
Rosbach	6/-	5/-	50	24/-	100	36/-
Royat	9/-	—	50	34/-	—	—
Rubinat	15/-	9/-	25	30/-	50	36/-
St. Galmier	6/-	—	50	22/-	—	—
St. Marco	11/-	6/6	50	42/-	100	52/-
Selters	6/-	4/6	50	24/-	50	17/-
Vals	8/6	—	50	33/-	—	—
Vichy (State Springs) "Celestins," "Grande-Grille," &c.	8/6	7/6	50	33/-	50	29/-

CARRIAGE PAID to any RAILWAY STATION in the UNITED KINGDOM.

DETAILED PRICE LIST AND PAMPHLET ON APPLICATION.

HEALTH WITHOUT PHYSIC

TRADE MARK

POTTERS HERB BEER EXTRACT

PURELY HERBAL

GOOD FLAVOUR

CREAMY-HEAD

NON-INTOXICATING

MAKES THE FINEST NON-INTOXICATING DRINK IN THE MARKET.

This Purely Botanic Extract is composed of the Best English Herbs, including Hops, Dandelion, Horehound, and Gentian.

As a Dinner or Supper Beverage it is unequalled.
Its Tonic & Purifying Properties render it very beneficial.
It is now drunk in all parts of the World.

A Sixpenny Bottle will make Eight Gallons of Splendid Botanic Beer. Price 3/6 per dozen. Gross quantities at 3/3 per dozen.

PREPARED ONLY BY

POTTER & CLARKE, LONDON, E.

FLORAL Sachets

THOUSANDS of grosses already sold.

The Prettiest and Most Saleable 1d. Sachet on the Market.

CAMPHOR & LAVENDER. MUSK & LAVENDER. LAVENDER & ROSES.

In ¼-gross Boxes, with Glass Top, Price 7/- per gross.

Price: ONE PENNY.

May be obtained of all Wholesale Druggists and Sundriesmen, or of the Proprietors:

POTTER & CLARKE,
5, 6 & 7, RAVEN ROW,
ARTILLERY LANE, E.

OR PERFUMING WARDROBES, AND PURIFYING AND SWEETENING THE ATMOSPHERE.

JOHN WYETH & BROTHER

MANUFACTURING PHARMACEUTICAL CHEMISTS.

PHILADELPHIA, U.S.A. LONDON, E.C.: 30 SNOW HILL.

We were the **FIRST** to introduce to the Pharmacist and the Medical Profession, a line of

COMPRESSED PILLS (OR POWDERS)

We are the **LARGEST** Manufacturers of this line of products.

The Machinery and appliances connected with our compressing department are Marvels of Perfection and Accuracy, and the Products wonderful in their Accuracy, Beauty, Style of Finish, Ready Solubility, and Permanency. We use only the **PUREST MATERIAL.** The closest attention is given to every detail of manipulation, and the whole process is under the supervision and direction of the highest commercial integrity, thus ensuring the **SUPERIORITY** of our Preparations.

THE RETAIL CHEMIST WILL DO WELL TO NOTE THAT

WYETH'S COMPRESSED PILLS (OR POWDERS)

WYETH'S SUGAR-COATED COMPRESSED PILLS (OR POWDERS)

WYETH'S SOLUBLE COMPRESSED HYPODERMIC DISCS

WYETH'S COMPRESSED OPHTHALMIC DISCS

WYETH'S BEEF JUICE AS WELL AS

WYETH'S DIALYSED IRON

WYETH'S ELIXIR DIGESTIVE FERMENTS

WYETH'S GLYCEROLE CHLORIDE OF IRON

Are being presented to the attention of the Medical Profession by means of personal interviews, samples and literature, and Advertisements in the Medical Journals. They are being prescribed by Physicians and ordered by Hospitals, and should be found in stock in every well-appointed Pharmacy.

NOTE That all Labels of Wyeth's Pharmaceutical Preparations bear the full firm name and address, "JOHN WYETH & BROTHER, PHILADELPHIA, U.S.A.," and the name and address of the Resident Representative, "WILLIAM F. HORTON, 30 Snow Hill, LONDON."

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Where a full supply of WYETH'S PHARMACEUTICAL PREPARATIONS can be obtained on best terms.

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WILLIAM F. HORTON, Resident Representative of **JOHN WYETH & BROTHER,** **30 SNOW HILL, LONDON, E.C.**

Re Armour & Co.

Daily Reports.

59 Tooley Street, London, S.E.

To Chemists.

Preston,
Sept. 9, 1893.

Dear Sirs,—We have used several of your preparations, with eminently satisfactory results.

Yours faithfully,

Sept. 9, 1893.

Dear Sirs,—We now stock and use Armour's Pepsin Powder, Glycerole Pepsin, &c.

We find them excellent preparations, and very cheap.

We shall be pleased to receive from you leaflets and other advertising matter relating to your preparations. Thanking you in anticipation.

Laboratories:
Chicago, U.S.A.

These letters give some idea of the good impression our goods create, and have, with many others, been received within the last few days.

The prescription of our products by medical men increases daily; at the same time we can show any chemist who will write us, profitable ways of using our Digestive Ferments, &c., in their own proprietary or other preparations.

WRITE US,

We can send you "Armour's Formulary," containing many useful receipts,

FREE.

Attractive advertising matter.

Special pamphlets for medical men.

Bradford,
Sept. 7, 1893.

Dear Sirs,—I may say I am perfectly satisfied with your preparations.

Yours truly,

Manchester,
Sept. 9.

Gentlemen,—I am obliged by your letter, and thank you for the Samples of Pepsin, &c., sent some time ago, and which I liked exceedingly. I have been ordering your preparations through my druggist.

Yours truly,

, M.D.

European Office:
59 Tooley Street, London, S.E.

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HOUSEHOLD SPECIALITIES.

YORKSHIRE RELISH.

Most Delicious Sauce in the World. Bottles, 6*d.*, 1*s.*, & 2*s.* each.

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The Best in the World. 1*d.* Packets; 6*d.*, 1*s.*, 2*s.*, and 5*s.* Tins.

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One 6d. Tin is equal to 25 Eggs. In 1*d.* Packets; 6*d.*, 1*s.*, and 5*s.* Tins.

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Delicious Custards without Eggs. In Boxes, 2*d.*, 6*d.*, & 1*s.* each.

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Delicious Blancmange in a Few Minutes. Boxes, 6*d.* and 1*s.* each.

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Best Tonic yet Introduced. Bottles, 6*d.*, 1*s.*, and 2*s.* each.

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Makes the Best Ginger-Beer. Packets, 3*d.* and 6*d.*

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For Painting Stoves, Grates, Iron, Tin, &c. 6*d.* & 1*s.* Bottles.

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Rich and Lasting Perfume. Bottles, 1*s.*, 2*s.*, and 5*s.* each.

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For Polishing and Cleaning all Metals. Boxes, 6*d.*, 1*s.*, and 2*s*

GOODALL'S JELLY SQUARES.

Make a Delicious and Nutritious Jelly. In ½-pint, 1-pint, and Quart Boxes, 3*d.*, 6*d.*, and 1*s.* each.

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DRUGGISTS' SUNDRIES.

Monthly Price List of Patent Medicines, Druggists' Sundries, &c., will be sent post free on application to

GOODALL, BACKHOUSE & CO., LEEDS.

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MASON'S EXTRACTS AND WINE ESSENCES.

EXTRACT OF HERBS	LEMONINE
" " DANDELION	CIDERINE
" " SARSAPARILLA	HOREHOUNDINE
" " HOPS	FOAMINE
" " GINGER	WINTER EXTRACT
" " GINGER ALE	

Mason's Wine Essences.

GINGER	SARSAPARILLA
RASPBERRY	LEMON SQUASH
COWSLIP	CHERRY
STRAWBERRY	PEPPERMINT
ORANGE	PORT
BLACK CURRANT	SHERRY
RED CURRANT	CLOVES
LEMON	ELDERBERRY
LIME FRUIT	DAMSON
JARGONELLE	RAISIN
QUININE	GOOSEBERRY
PINE APPLE	"WARMINE"

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SPECIALITIES—

THE NEW PRESERVATIVE,

SEMPER-DULCIS or EVER-SWEET

For Milk, Butter, Cream, Sausages, &c., &c.

FINEST BUTTER COLOR

(BUTTERCUP BRAND).

ACIDS OF ALL KINDS.

GRANULATED EFFERVESCENT PREPARATIONS.

BUYERS SHOULD SEND FOR QUOTATIONS

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Every Requisite for the Smoker in One Order.

MINIMUM OF TROUBLE. MAXIMUM OF PROFITS.

Every known Manufacturer's Packet Tobaccos and Cigarettes at their List Prices. Foreign Cigars and Tobacconists' Fancy Goods at Importers' Prices. Carriage paid on parcels of £2 upwards to any station in the United Kingdom.

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TOBACCO, SNUFF, CIGARETTE, & CIGAR MANUFACTURERS AND IMPORTERS,

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PETER TYRER'S SAUCES

WORCESTER, READING, HARVIE, YORKSHIRE, AND "BOROUGH" KETCHUP.

SILVER MEDAL.

	Per gross.	Extra quality.
½d Sample Bottles, dozen parcels	5/3	6/3
" " ½-gross boxes	5/9	6/9
½d. Giant " dozen parcels	6/6	8/6
" " ½-gross boxes	7/-	9/-

	Per gross.	Extra quality.
½ Bottles, flat or round, reputed half-pints	16/-	26/-
¼ " " " pints	26/-	38/-
1 Pint Imperial, round stoppered bottles	52/-	62/-
12½-Gallon Casks (*casks free*) each	20/-	32/-

ROYAL CAFE SAUCE, a Rich Fruity and Exquisite Flavour.

Square Glass Stoppered Bottles, containing nearly ½-pint Imperial, 42/- per gross. Sample Bottles at 7/- per gross.

MANUFACTORY — 30 SOUTHALL PLACE, LONG LANE, BOROUGH, LONDON, S.E.

CHIEF SCOTCH AGENCY — West Nile Street, GLASGOW.

To H.R.H. The Prince of Wales, The Empress of Germany, &c.

BRAND & CO.'S

PEPTONES

OF

BEEF, MUTTON, VEAL,

AND

CHICKEN.

NONE GENUINE WITHOUT THE

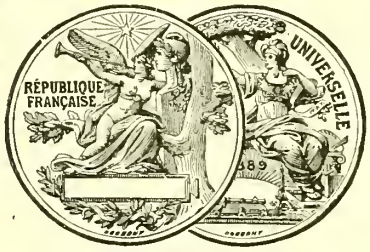
REGISTERED TRADE MARK.

TOWER TEA

HIGHEST AWARD, PARIS, 1889.

Analysis by the "LANCET," December 20th, 1890:—

"We have submitted to examination the Teas of the Great Tower Street Tea Company (Limited). They all yield liquors which are generous to the taste, and of full strength and vigour. The results of our analysis indicate the purity and genuineness of the samples."



PRIZE MEDAL, PARIS, 1889.

Where Vacancies exist, Agencies are appointed by

THE GREAT TOWER STREET TEA CO., LIMITED

5 JEWRY STREET, LONDON, E.C.

PURE ORANGE WINE

(VINUM AURANTII, B.P.), prepared in strict accordance with the Formula of the British Pharmacopœia.

MOST SUITABLE BASIS FOR QUININE AND OTHER MEDICATED WINES.

A. MILLAR & CO., DUBLIN; and 47 MARK LANE, LONDON, E.C.

Or of H. J. ROYDANT & CO., 75 Acre Lane, BRIXTON, S.W.

HIRST, BROOKE & HIRST (LIM.), LEEDS,

Manufacturing Chemists and Wholesale Druggists, Manufacturers of

ORANGE WINE

Of Finest Flavour and Quality, and specially suitable for the Preparation of Orange Quinine Wine.

"EAU-HORN"

(REGISTERED TRADE MARK)

THE CURE FOR

BALDNESS.

Retail Price 5/- per Bottle.

Messrs. F. NEWBERY & SONS, 1 King Edward Street, London, E.C., will be happy to quote *most advantageous* terms for the above, and Dr. Horn's other renowned Specialities for the Hair.

NAMES OF AGENTS WELL ADVERTISED. HANDSOME SHOW CARDS, &c.

The above goods enjoy an enormous and ever-increasing sale in all parts of the World. Sole Proprietor—

O. E. HORN, D.Sc., Newport, I.O.W.

SUPPORT HOME INDUSTRIES.

A.D. 1777.

BUY KENT'S BRUSHES.

See pp. 85-88, Winter Issue; also Diary, 1893, pp 437-40.

MASON & CO.'S, LIM.

PREPARATIONS.

TRADE MARK.

Essence of Beef	Meat Juice
Essence of Chicken	Malted Food for Infants
Essence of Veal	Extract of Malt
Essence of Mutton	"O.K." Bouillon
Beef Tea Jelly	"O.K." Sauce
Concentrated Beef Tea	"O.K." Relish
Meat Lozenges	"O.K." Curry Powder

SEND FOR PRICE LIST.

417 & 419 KING'S ROAD, CHELSEA, LONDON, S.W.

PARIS EXHIBITION, 1889.

PRIZE MEDAL AWARDED TO

"SALVO PETROLIA"

Absolutely Genuine Paraffinum Molle of the very Purest Form, and we claim that it is superior to Vaseline.

Manufactured by the Proprietors in Five distinct qualities—

WHITE, LEMON, YELLOW, GOLDEN, AND VETERINARY.

PACKED IN TINS, 1, 5, 10, 14, 28, 56, and 112 lbs. Also in 3-cwt. Casks.

"Edible Salvo Petrolia"

For Public Speakers, Actors, and Singers.

1*s.* 6*d.* per Tube.

"OLEUM DEELINÆ"

(REGISTERED).

Universally adopted by the Medical Profession for

OPHTHALMIA, SCURVY, RINGWORM, ECZEMA AND ALL SKIN-DISEASES.

For External and Internal Irritation of every kind.

PACKED IN CASES—

One Doz. 1s. 6d. Bottles; One Doz. 2s. 6d. Bottles. Pint Bottles, 4*s.* 6*d.* each, for Hospitals and Dispensing Chemists.

TESTIMONIALS MAY BE HAD UPON APPLICATION.

The above are Manufactured Solely by the Proprietors,

THE DEE OIL COMPY.

LIMITED.

Works—SALTNEY, CHESTER.

OFFICES—

49 LIME STREET, E.C.

Liverpool, Dublin, Manchester, Glasgow, Hull, Cardiff, Bristol, Belfast Barrow-in-Furness, Nottingham, Paris, Hamburg, &c.

EXCEPTIONAL VALUE.

ORANGE AND QUININE WINE, B.P.

In 26-oz. Bottles, **10/-** per doz.

Prepared with HOWARDS' Sulphate of Quinine.

The Chemist and Druggist says:—"Messrs. STEPHEN SMITH & Co., of Bow, E., are putting on the market an orange-quinine wine in wine-quart bottles. It is made according to the British Pharmacopœia, and they have sent us a sample, which we have examined critically. The orange-wine from which the preparation is made is of a pale-brown colour, good orange odour, and contains 7 per cent. of soluble matter other than quinine. This is mainly sugar. Its alcoholic strength we find to be equal to **25** per cent. proof spirit, or **11·8** per cent. by weight of alcohol, so that it is of the higher standard recognised by the Pharmacopœia. The alkaloidal value of the wine is also satisfactory. Three ounces of it yielded **2·3** grains of ether-soluble alkaloid, equal to **2·7** grains of sulphate of quinine, and allowing for experimental loss and the usual cinchonidine content (not extractable by ether) it will be seen that the wine has obtained not only the pharmacopœial *quantum*, but that it has lost little of it by tannic precipitation."

HIGH CLASS SHERRY, B.P., for Pharmaceutical purposes and Drinking, **6/6** per gall., **16/-** per doz.
EXTRA PALIDO SHERRY, delicate Dry Wine, **7/3** per gall., **18/-** per doz.
ORANGE WINE, GINGER WINE, S.V.R. B.P., S.V.R. for Perfumery.
HALL'S COCA WINE, from all the Wholesale Houses.

SAMPLES OF ANY OF THE ABOVE FREE.

STEPHEN SMITH & CO., BOW, LONDON, E.

NET CASH WITH ORDER.

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PERFECTLY PURE.
FIT FOR ANY PURPOSE.

PURE ORANGE WINE.

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AT LOWEST PRICES.
Special Terms to Large Buyers.

PURE GINGER WINE.

FOREIGN WINE AND SPIRIT MERCHANTS.
SOLE PROPRIETORS OF THE FAMOUS **"GLENALLAN"** PURE MALT WHISKY.
Per doz. **42/-** Per doz. THE CREAM OF SCOTCH BLENDS. Per doz. **42/-** Per doz.

BOORD & SON,

DISTILLERS, FOREIGN WINE AND SPIRIT MERCHANTS, AND METHYLATORS,
ALLHALLOWS' LANE AND BARTHOLOMEW CLOSE, LONDON, E.C.
Quotations for **S. V. R.** *Methylated Spirit and Finish on application.*
FINEST ORANGE WINE FOR QUININE

JAMES BURROUGH

S.V.R. 65 o.p. 60 o.p.

CALE ST., CHELSEA, S.W.
and Methylated Spirit
AT LOWEST PRICES.
WRITE FOR QUOTATIONS.

STOCK KEPT IN LONDON

SOZIO & ANDRIOLI

ESTABLISHED A.D. 1757.] **GRASSE** (Alpes Maritimes), FRANCE.

Neroly, Lavender, Geranium, Orris, Patchouly, Thyme, Rosemary, Spike, Santal, &c.

CONCENTRATED PERFUMES. | **CONCRETE ESSENTIAL OILS.**

FLOWER POMADES at the highest possible Saturation. ROSE & ORANGE FLOWER WATER, Sweet Almond Oil.

London Agent—MR. FREDK. BOEHM, 4 CULLUM ST., E.C.

STOCK KEPT IN LONDON.

PLEASE NOTE.

THE GENUINE DALMATIAN INSECT POWDER,

Essential Oils, Fruit Essences, and French Extraits (Triple),

Formerly supplied by G. VOGT & CO., are now to be obtained from

STEVENSON & HOWELL, Standard Works, 95a Southwark Street, **LONDON, S.E.**

Who have taken over the Business and Stock.

Telegrams—"Distiller London." *PRICE LISTS FREE.* *Telephone 4747.*

CHEMICAL DISINFECTANT.

A 10 and 15% CARBOLIC Antiseptic and Deodorising Powder.

In bags and casks free.

AGENTS WANTED

to supply Corporations and large users.

6d. and 1/- Decorated
4/- and 8/- per doz. Boxes.

Special terms for 5 gross and upwards, with agent's name and address thereon.

CHESHIRE BIRD LIME.

In 1d., 2d., and 3d. tins. Also in 1, 2, 3, and 7 lb. tins and casks, for large consumers and the trade.

The new and attractively labelled tin boxes are very convenient and handy for use and retailing. Save time and trouble.

"COAGULINE" TRADE MARK.

Transparent Cement for Broken Articles,

CUE CEMENT.

CUE-TIP FIXER S

(Brass or Wood).

TIPS, WAFERS, CHALKS.

LAVA.

A fusible imperishable Cement for Stone and Iron Work Bedding, &c.

SAPO LINI,

OR

LINSEED SOAP

(A Saponified Linseed Jelly).

In Brown Windsor or "Rosotto" Tablets.

Prices, Circulars with Name and Address, Specimens, Show Cards, Glass Tablets &c., &c., on application.

KAY BROTHERS LIMITED, Laboratory and Works, ST. PETERSGATE MILLS, **STOCKPORT.** Founded A.D. 1786. Incorporated 1887.

PHILIP JOSEPHS, 54, 68, and 93 OLD ST., GOSWELL RD., **LONDON, E.C.**

Has always in Stock a large assortment of Second-hand and New Drawers, Counters, Dispensing Screens, Glass Wall and Counter Cases, and every requisite for Fitting-up a Shop within 24 hours at prices less than any other house.

Inspection invited.

CLOSED ON SATURDAYS.

PRIZE MEDAL, International Health Exhibition, 1884.

THE NEW PERMANENT

ENGRAVED WINDOW TABLETS

AWARD OF MERIT International Sanitary Exhibition, 1881.

IN RUBY, BLUE, AMBER, AND OPAL GLASS.

Send particulars of size, subject matter, and colour, when price for one Tablet and upwards will be sent.

For Proprietary Articles, 100 8×6 Ruby Tablets, £3 15s. 0d.

J. R. CORSAN, The London Sand-blast Works, 58a GRAY'S INN ROAD, W.C.

TO PREVENT FRAUD, DEMAND BUSINESS CARD FROM TRAVELLERS.

In Brass Boxes only,
Embossed as
shown in these Medallions.

These Cachoux are delicately flavoured
and are the most efficient
BREATH PERFUME
offered to the
Public.

PRINCE ALBERT'S CACHOUX

They look well,
they sell well,
and, most important,
pay well.

Sample gross for 36/- on receipt of cash.

FROM THE LABORATORY OF (C)
THOMAS JACKSON, MANCHESTER

Are fitted with the
ALBERT GATE for paying
out the Cachoux singly.

PASCALL'S GOLDEN MALTEX

PATENTED.

Contains 25% of Allen & Hanburys' Extract of Malt.

A NOVEL CONFECTION.

Delicious Flavour. Brilliant and Attractive Appearance.

SELLS AT SIGHT.

Vide Dr. Tanner's Report, and *The Chemist and Druggist*, April 20th.

1/- Bottles, **9**/- per dozen; 1-lb. Bottles, **18**/- per dozen; and in 2-lb. and 4-lb. Bottles, **1/4** per lb.

HANDBILLS POST FREE ON APPLICATION.

OF ALL WHOLESALE HOUSES OR OF THE MANUFACTURER, [1]

JAS. PASCALL, BLACKFRIARS ROAD, LONDON, S.E.

BLEASDALE'S

FRAGRANT FLOWER CACHOUS

Are far ahead of anything yet produced in this class of goods.

They are WELL-MADE, BRIGHTLY GOT UP, and cannot be better described than as "Fresh bouquets cut with the May-dew on their lips."

"QUEEN of the MEADOW"
CACHOUS

Are a novelty, and their unique fragrance has already secured for them an extensive sale.

LILAC.	HELIOTROPE.
VIOLET.	JASMINE.
OPOPONAX.	YLANG-YLANG.
ROSE.	PATCHOULY.
BOUQUET.	MILLEFLEUR.
EAU-DE-COLOGNE.	
	LAVENDER.

2/6 per lb.

YORK.

NAME STAMPED **GRATIS**

BEST & SAFEST DENTIFRICE

SOLD BY ALL CHEMISTS AND PERFUMERS, IN ELEGANT CRYSTAL TOILET CASKET PRICE 2/6.

ALSO IN PATENT METALLIC BOX PRICE 1/-

On Orders of
3 doz.
Through any
Wholesale
House,
or direct to

OSCAR SUTTON & CO., Preston, Lancs.

A FACT WORTH KNOWING.

EWEN'S PURE LARD
MAKES THE BEST PASTRY.

PRESENT PRICE 11d. lb.

5 HATFIELD STREET, BLACKFRIARS.
LONDON, S.E.

GOLD MEDAL

JAMAICA EXHIBITION.

A PURE AND PERFECT ARTICLE FOR Teeth, Gums, and Breath.

PURILINE

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INDEX TO ADVERTISEMENTS APPEARING IN THIS ISSUE.

NOTE—The Folios shown in this Index are those at the FOOT of the Page, and not at the Top. This arrangement is necessary in order to meet the requirements of the Post Office.

	Foot of Page
Allen & Hanburys	*Cover*
Anderston Apothecaries' Co.	50
Apollinaris Co. (Lim.)	*Cover*
Armour & Co.	15
Atkinson & Barker	50
Bailey, W. H., & Son	32
Barclay & Sons (Lim.)	50
Barrett, R. H.	52
Benger's Food	34
Berdoe & Co.	*Coloured Supplement*
Bewley & Draper (Lim.)	34
Bleasdale & Co.	21
Blondeau & Co.	9
Boehm, F.	7
Boehringer & Soehne	37
Boissy	*Text* 480
Boord & Son	19
Boulton, J., & Co.	16
Bowers Bros.	4
Bradley & Bourdas	23
Braud & Co.	17
Bratby & Hinchliffe (Lim.)	12
Brett, F. J.	*Coloured Supplement*
Bromley, C.	53
Browne, T. B.	*Text* 480
Browning & Co.	10
Bryce & Rumpff	28
Burgess, E., junr.	44
Burrough, James	19
Burroughs, Wellcome & Co.	33, 34
Burton & Sons	46
Cadbury Bros.	*Cover*
Calvert, F. C., & Co.	48
Chemists' Association (Lim.)	31
Chesebrough, The, Co.	34
Christy & Co.	53
Cocking, J. T.	31
Cook, E., & Co.	23
Corsan, J. R.	20
Critchley, T.	50
Crocker, G. B., & Co.	*Col. Supp.*
Davenport, J. T.	42
Davidson & Gray	53
Day, Son & Hewitt	49
Day & Sons	48, *Text* 480
Dee Oil Co. (Lim.)	18
Denoual, J.	36
Dodd Bros.	23
Dorothy Dentifrice Co.	22
Duncan, Flockhart & Co.	34
Eade's Pills	53
Elliman, Sons & Co.	*Text* 480
Ellis & Son	*Text* 480
Eschmann Bros. & Walsh	31
Evans, Lescher & Webb	3
Evans, Sons & Co.	3
Evans and Sons (Lim.)	3
Ewen & Sons	21
Exchange Column	10
Fallowfield, J., & Co.	7
Faulkner, C. W., & Co.	5
Fink, F., & Co.	53
Fletcher, Fletcher & Stevenson	53, *Text* 480
Fuerst Bros.	40
Gardner, W.	52
Gent & Co.	*Text* 480
Gibson, R., & Son	24
Glendenuing, W.	*Text* 380
Glover & Co.	10
Goodall, Backhouse & Co.	16
Great Tower Street Tea Co.	17
Grimwade, Ridley & Co.	47
Hargreaves, Dr.	10
Harker, Stagg & Morgan	36
Haynes & Co.	53
Heald, A. J.	53
Hearn, Wright & Co.	52
Hicks, J. J.	4
Hildebrand, E.	53
Hill, A. S., & Sons	36
Hirst, Brooke & Hirst (Lim.)	17
Holroyd, J., & Co. (Lim.)	52
Horn, C. E.	18
Hubbuck & Son	33
Idris & Co. (Lim.)	11
Ingram & Royle	12
Isaacs & Co.	52
"Izal"	46
Jackson, T.	21
James, W. H.	48
Jamieson, W. & J.	22
Josephs, P.	20
Kay Bros. (Lim.)	20
Kent, G. B., & Sons	18
Kuhn, B.	40
Langhland, Mackay & Baker	47
Levermore, A., & Co.	53
Liquor Carnis Co.	37
Listerine	23
Liverpool Patent Lint Co.	30
Lloyd, T. Howard, & Co.	39
Lofthouse & Saltmor	40
London Homœopathic Hospital and Medical School	10
Manchester College	6
Mason, C. E., & Co.	48
Mason, G., & Co. (Lim.)	18
Maw, S., Son, & Thompson	43
May & Baker (Lim.)	*Cover*
May, Roberts & Co.	*Cover*
McKesson & Robbius	29
Metropolitan College	6
Millar, A., & Co.	17
Moss, J., & Co.	*Text* 480
National Cash Till Co.	7
Ness & Co.	53
Newball & Mason	16
Newbery, F., & Son	51
Northern School	6
O'Brien, T.	8
Orridge & Co.	*Coloured Supplement*
Owens College	6
Pascall, J.	21
Pears' Soap	35
Phillips, G., & Co.	19
Pinchin, Johnson & Co.	49
Potter & Clarke	13
Richardson, J., & Co. (Leicester), Lim.	41
Robbins & Co.	36
Roberts & Co.	37
Rooke, Dr. (Lim.)	44
Royal College of Science	6
St. Mary's Hospital	6
Sanitas Company (Lim.)	*Text* 480
Schutze & Co.	30
Seabury & Johnson	54
Shirley Bros.	51
Silverlock, H.	5
Singleton & Cole	16
Smith, S., & Co.	19
Smith, T. & H., & Co.	36
Solport Bros.	30
Sozio & Andrioli	20
Spirone Co.	32
Stevens, P. A.	53
Stevenson & Howell	20
Strong, C.	31
Surrey Packing Co.	23
Sutton O., & Co.	21
Sutton, W., & Co.	44
Symes & Co.	32
Taylor Bros.	4
Thiellay, E. H.	53
Townsend, J.	4
Typke & King	38
Tyrer, P.	17
Vaccine Association	50
Warner W. R., & Co.	27
Watson, Jos., & Son	23
W Brand Bottles	51
Werner & Pfleiderer	51
White & Sons	44
White, Fairchild & Co.	53
Will, W. W.	6
Willows, Francis & Butler	23
Wilson, A.	22
Wilson, M., & Co. (Lim.)	7
Wood, V.	30
Woods & Co.	46
Wright, Layman & Umney	*Text* 480
Wyeth, J., & Bro.	14
Zimmermann, A. & M.	45

CLASSIFIED LIST OF ALL ADVERTISERS

Whose Announcements appear in "THE CHEMIST AND DRUGGIST." Those whose Names do not appear in the preceding Index are published in one of the other issues of this month.

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Lorenz, H.
Morris & Callard (Salts)

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Typke & King

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Ingram & Royle
Jewsbury & Brown
Johannis Co.
Kinmond & Co.
Mills & Co. (Bourne)

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(See SYPHONS and ESSENCES.)
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Gueret Frères
Meadowcroft & Son
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Tyler, Hayward, & Co.

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Prosser, Taylor & Co.
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Smith, T. & H., & Co.

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Ford, Shapland & Co.
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Townsend, J.

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Woolley, Sons & Co.

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Christy, T., & Co.
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Orme, J., & Co. (Scientific)
Poths, H., & Co.

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Robinson & Sons
Schutze, F., & Co.
Wood, Vincent

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Maw, S., Son & Thompson
Pattison, G. | Solport Bros.
Wood, Vincent

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Howards & Sons
May & Baker, Lim.

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Hewlett & Sons
Howards & Sons
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White, Alfred, & Sons

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Silverlock, H.

BORAX
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Mack's Starch

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Barrett, R. H.
Bratby & Hinchliffe, Lim.
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Gilbertson, H., & Sons
Hearn, Wright & Co.
Isaacs & Co.
Johnsen & Jörgensen
Kilner Bros.
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Poths, H., & Co.
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Youldon, E.

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Kilner Bros. | Maxime & Co.
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Tomlinson & Hayward

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Jackson, Thos. | Pascall, J.
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Fuerst Bros. | Howards & Sons
May & Baker, Lim.

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Hatrick & Co., Lim.
Holroyd, J., & Co., Lim (Moulds)
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Lofthouse & Saltmer
Richardson, John, & Co. (Leicester), Lim.
Warrick Bros.

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Lorimer & Co.
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May, Roberts & Co.
Newbery, F., & Sons
Sanker & Sons

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Patent Voucher Check Till Co., Lim.
Stokes, G. R., & Co., Lim.

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Brunner, Mond & Co., Lim.
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Fuerst Bros.
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Hodgkinsons, Treacher & Howards & Sons (Pharm.)
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Lofthouse & Saltmer
Lorenz, H.
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Zimmermann, A. & M.

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Liverpool Patent Lint Co.
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Wood, Vincent

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National Chemical Co.

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Wright, Layman & Umney
Zimmermann, A. & M.

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Mumford, S. G.
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Hanson, O.
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Jewsbury & Brown
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Quelch, H. C.
Ricksecker, Uno
Robertshaw & Co.
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Sanitas Co., Lim.
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Tyrer, T., & Co.
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Spratt's Patent, Lim.
DRUGS
Hopf, R.
DRUGGISTS' SUN.
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Burton, W., & Sons
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Farina, J. M.
Hockin, Wilson & Co. (Farina)
Martin, Maria (Nun)
Moenich, Oscar, & Co.
Mulhens, F.
ELECTRIC APPAR.
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Gent & Co. | Orme & Co.
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Day & Sons
ENEMAS
Barclays, Lim.
Evans, Sons & Co.
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Wood, Vincent
ENGRAVERS
Corsan, J. R.
ESSENCES
Boehm, Fredk.
Boulton, J., & Co. (Lim.)
Brathy & Hinchliffe, Lim.
Burgoyne, Burbidges & Co.
Bush, W. J., & Co.
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Goodall, Backhouse & Co.
Idris & Co., Lim.
May & Baker, Lim.
Meadowcroft & Son
Newball & Mason
Rylands, Dan, Lim.
Stevenson & Howell
Tyrer, P. (Anchovies)
Tyrer, T., & Co.
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Barrett, A. A.
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Brummerstaedt & Lüders
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Cocking & Co. (Japan Peppermint)
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May & Baker, Lim.
Meadowcroft & Sons
Rylands, Dan, Lim.
Sozio & Andrioli
Stevenson & Howell
Symes & Co.
Treatt, R. C.
Warrick Bros.
Witrofsky, E.
Wright, Layman & Umney
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Howards & Sons
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Tyrer, T., & Co.
White, A., & Sons
Woolley, Sons & Co.
Wright, Layman & Umney
EUCALYPTUS
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Murdoch, J., & Co.
Tasmanian Eucalyptus Oil Co.
Woods & Co.
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EXTRACT MEAT
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Idris & Co. (Viking Co.)
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Hearon, Squire & Francis
Hooper, B., & Co.
Lloyd T., Howard, & Co.
Moss & Co.
Potter & Clarke
Wright, Layman & Umney
FEEDG BOTTLES
Burroughs, Wellcome & Co. (Thermo Safe)
Chemists' Association, Lim.
Evans, Sons & Co.
Hearn, Wright & Co.
Hockin, Wilson & Co.
Kilner Bros. | Lynch & Co.
Marriott, E., & Co.
May, Roberts & Co.
Maw, S., Son & Thompson
Spence & Co.
Surrey Packing Co.
FILTERS
Berkefeld Filter Co.
Fordham, W. B., & Sons, Lim.
Mawson Filter Co.
Silicated Carbon Filter Co.
FLY PAPERS
Ford, Shapland & Co.
Strong, Christy
Tunbridge & Wright
FORMULA
Brooks, T.

FOOD (Infants' & Invalid's
Allen & Hanburys
Benger's Food
Brand & Co.
Chibnall, H. B.
Evans, Sons & Co.
Goodall, Backhouse & Co.
Hearon, Squire & Francis
Liebig Co.
Lorimer & Co.
Mason, G., & Co. Lim.
Mellin's Food
Nestlé, H.
Ridge, Dr.
Tyrer, P.
Viking Food Co.
Wyeth, J., & Bro.
GINGER ALE
Mills, R. M., & Co.
Ross & Co.
GLYCERINE
Blyton, Astley & Co. (Pastilles)
Boehm, F. | Fink & Co.
Fuerst Bros.
Price's Candle Co., Lim.
Watson & Sons
GOUT & RHEU-MATIC PILLS
Bromley, C.
Eade, Geo.
Prout & Harsant (Blair's)
GRANULAR PREP.
Bishop, A., & Sons
Blyton, Astley & Co.
Evans, Sons & Co.
Hearon, Squire & Francis
Lloyd, T. Howard, & Co.
Wright, Layman & Umney
GUM
Fink & Co. (Arabic, &c.)
HAIR PREP.
Anglo-American Drug Co., Lim.
Chesebrough Co.
Edwards & Co.
Horn, O. E.
Ricksecker, Theo.
Truefitt, H. P., Lim.
HERB BEER EXTS
Newball & Mason
Potter & Clarke
Schmidt, Karl
HOMŒOPATHIC
Epps & Co.
Keene & Ashwell
Leath & Ross
Thompson & Capper
Watson & Wates
HONEY
Evans, Sons & Co.
May, Roberts & Co.
HYPOPHOSPHITES
Duncan Flockhart & Co.
Fellows
Fletcher, Fletcher & Co.
Lorimer & Co.
Symes & Co.
Tyrer, T., & Co.
INDIARUB. GOODS
Tyer Rubber Co.
INHALERS
Burroughs, Wellcome & Co.
Hockin, Wilson & Co.
Spirone, Co., The
Toogood, W.
INK [See MARKING INKS]
Bewley & Draper
INSECTICIDES
Rocke, Tompsitt & Co.
Steiner & Co.
JARS
Rylands, Dan, Lim.
KETCHUP
Tyrer, P.
KOLA PREPRTN
Christy, T., & Co.
LARD
Ewen, J., & Sons
LIME JUICE
Evans, Sons & Co.
Lorimer & Co.
LINT
Liverpool Lint Co.
Maw, S., Son & Thompson
Newsome, C.
Robinson & Sons
LIQUORICE
Dennis Di Luggo & Co.
LITHIA
Fuerst Bros.
LOZENGES
Allen & Hanburys
Blyton, Astley & Co.
Davidson & Gray
Gibson, R., & Sons (Manfrs.)
Hill & Son
Jackson, T.
Lorimer & Co.
Pascall. J.
Raimes & Co. | Warrick Bros.
MACHINERY
Bennett, Sons & Shears
Burroughs, Wellcome & Co.
Gardner, W.
Martin Perls & Co.
Ohlson, A.
Pindar, J. W.
Struthers & Craig (Sifting)
Werner & Pfleiderer (Kneading and Sifting)
MAGNESIA
Bush, W., Son & Co.
Duncan, Fuller & Co.
Evans, Sons & Co.
Henry, T. & W. (Calcined)
Hill, A. S., & Sons
Washington Chemical Co.

MALT EXTRCT, &c.
Allen & Hanburys
Burroughs, Wellcome & Co. (Kepler's)
Glendenning, W.
Hearon, Squire & Francis
Lorimer & Co.
Moss, J., & Co.
Raimes & Co.
Richardson, John, & Co. (Leicester), Lim.
Robinson & Co.
MARKING INKS
Bond, John (Crystal Palace) (Ink and Pencils)
MEDICINE CHSTS
Burroughs, Wellcome & Co.
Day, Son & Hewitt (Veterinary)
Day & Sons (Veterinary)
MENTHOL
Burroughs, Wellcome & Co.
Christy, T., & Co.
Cocking & Co.
Duncan, Fuller & Co.
Evans, Sons & Co.
Hockin, Wilson & Co.
Tyrer, P. | Vint, T. D.
MERCURIALS
Fuerst Bros.
Howards & Sons
May & Baker, Lim.
Tyrer, T., & Co.
METH. SPIRTS, &c.
Boord & Son | Burrough, J.
Jones & Co.
Phillips, G., & Co.
Smith, S., & Co.
METHYLENE
Robbins, J., & Co.
MICROSCOPES
Darton, F., & Co.
Perken, Son & Rayment
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Nestlé, H. (Condensed)
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Chesebrough Co. (Vaseline)
Christy, T., & Co.
Lanoline
Lloyd, T. Howard, & Co.
Richardson, J., & Co. (Leicester), Lim. (Anaspaline)
OPIUM
Hopf, R.
OPTICIANS
Botwright & Grey
Darton, F., & Co.
OTTO OF ROSE
Fuerst Bros.
Warrick Bros.
Witrofsky, J. R.
OXIDE OF ZINC
Hubbuck, T., & Son, Lim.
PAPAIN
Kühn, B. (Dr. Finkler)
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Anglo-Amer. Drug Co., Lim.
Atkinson & Barker (Infant Preserv.)
Barclay & Sons, Lim.
Beecham, T. (Pills)
Bow's, Dr., Liniment
Bromley, C. (Gout and Rheu.)
Chemists' Association, Lim.
Clarke's Blood Mixture
Congreve, G. F.
Edwards & Son
Evans, Lescher & Webb
Fassett & Johnson
Fenning (Powders)
Goodall, Backhouse & Co.
Holloway (Pills and Oint.)
Hovenden & Sons
Lalor (Phosphodyne, &c.)
May, Roberts & Co.
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Armour & Co.
Burroughs, Wellcome & Co.
Chassaing & Co.
Fletcher, Fletcher&Stevenson
Kühn, B.
Lorimer & Co.
Newbery, F., & Sons (Ingluvin)
Stern, G. & G.
Warner & Co. (Ingluvin)
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Bush, W. J., & Co.
Cocking & Co.
Stevenson & Howell
PEROX. OF HYDR.
Burton, W., & Sons
May & Baker, Lim.
Robbins & Co.
PETROLEUM
Allen & Hanburys
Barclay & Sons, Lim.
Dee Oil Co., Lim.
Fuerst Bros. (Jelly)

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Bleasdale & Co.
Blondeau & Cie. | Boehm, F.
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Burroughs, Wellcome & Co.
Bush, W., & Co.
Chemists' Association, Lim.
Chesebrough Co.
Crown Perfumery Co.
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Farina, J. M.
Greensill & Son
Hovenden & Sons
Lanoline | Mulhens, F.
Newbery, F., & Sons (Berdoe)
Pears', A & F., Lim.
Potter & Clarke
Price's Patent Candle Co.
Ricksecker, Theo
Sandoid & Co.
Sozio & Andrioli
Tidman & Son | Treatt, R. C.
Truefitt, H. P., Lim.
Warrick Brothers
West, T. (Okell's Mona)
Woolley, Sons & Co. (Powder)
Wright, Layman & Umney
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Allen & Hanburys
Armour & Co.
Arthur & Co.
Baiss Bros.
Barron, Harveys & Co.
Bieber, J. D. | Boehm, Fredk.
Boehringer, C. F., & Sohne
Boulton, J., & Co., Lim.
Brady & Martin
Bryce & Rumpff
Burgoyne, Burbidges & Co.
Burroughs, Wellcome & Co.
Chassaing & Co.
Duncan, Flockhart & Co.
Ferris & Co.
Fletcher, Fletcher & Co.
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Sutton, W., & Co.
Symes & Co.
Tyrer, T., & Co.
White, Alfred, & Sons
Woolley, Sons & Co.
Wyeth, Jno., & Bro.
Zimmermann, A. & M.
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Darton, F., & Co.
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Orme, J., & Co.
Perken, Son & Rayment
Tyrer, T., & Co.
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PILLS (Coated, &c.)
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Blyton, Astley & Co.
Bromley, C. (Gout & Rheu.)
Burgess, E., Jun.
Clay, Dod & Co.
Davidson & Gray
Dr. Williams
Duncan, Flockhart & Co.
Eade's Gout Pills
Evans, Sons & Co.
Harroline Pill Co.
Hearon, Squire & Francis
Hill, A. S., & Son
Holloway's
Jolly & Son, Lim.
Lloyd, T. Howard, & Co.
Lorimer & Co.
McKesson & Robbins
Newbery, F., & Sons
Potter & Sacker
Richardson, J., & Co., Lim.
Wand, S. (Pearl Coated)
Warner, W. R., & Co. (Coated)
Wyeth, J., & Bro.
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Evans, Sons & Co.
Johnson & Johnson
Seabury & Johnson
PODOPHYLLIN, &c.
Smith, T.
POLISHING
Bradley & Bourdas (Albatum)
Chancellor & Co.
Fordham, W. B., & Sons, Lim.
Oakey, John, & Sons

PORCELAIN GDS
Toogood (E.c. Pots, regist.)
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Ford, Shapland & Co.
Hildesheimer, A. (Colour)
Silverlock, H.
Taylor Bros. | Townsend, J.
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Stern, G. & G.
QUININE SALTS
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Howards & Sons
Zimmermann, A. & M.
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Duncan, Flockhart & Co.
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Maw, S., Son & Thompson
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Victoria Rubber Co.
SACCHARIN
Allen & Hanburys
Burroughs, Wellcome & Co.
SALICIN
Macfarlan & Co.
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Tyrer, P.
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Eovenden & Sons (Euxesis)
Lloyd, Mrs. A. S. (Euxesis)
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Fletcher Bros. & Co.
Jeyes'Sanitary CompoundsCo.
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City School of Chemistry and Pharmacy, Lim.
Davis, Fredk.
Liverpool School of Pharmacy
London Homœopathic and Medical School
Manchester Col. of Pharmacy
Mason College
Metropolitan Coll. of Pharmcy
Middlesex Hospital Medical School
Northern School of Pharmacy
Owens College
Royal College of Science
School of Pharmacy
Sheffield College of Pharmacy
South London School of Pharmacy, Lim.
St. Mary's Hospital School
The School of Pharmacy
Westminster College
Will, W. W.
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Potter & Clarke
SELTZOGENES
Bratby & Hinchliffe, Lim.
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Evans, Sons & Co.
Geraut, E., & Co.
May, Roberts & Co.
SHOP FITTERS
Bowling & Govier
Bygrave, J. & W.
Evans, Sons & Co.
Howlett, S. | Josephs, P.
Natali & Co. | Natali, E.
Poths, H., & Co.
SOAP
Ayrton & Saunders
Barclay & Sons, Lim.
Blondeau et Cie. (Vinolia)
Bronnley, H., & Co.
Calvert, F. C., & Co.
Cook, E., & Co.
Dodd Bros.
Fordham, W. B., & Sons, Lim.
Jeyes' Sanitary CompoundsCo
Martin, Perls & Co.
Muhlens, F.
Pears, A. & F., Lim.
Price, Napoleon, & Co., Lim.
Wright, Layman & Umney
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Burton, W., & Sons
SPECTACLES
Botwright & Grey
Darton, F., & Co.
Perken, Son & Rayment

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Cresswell Bros. & Schmitz
Evans, Sons & Co.
Peterson, M., & Co.
STAMPS (RUBBER)
Hickisson, J.
STARCH
Chancellor & Co. (Mack's
Critchley (Gloss) [Double)
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Austin & Co. (Sprinklers)
Barnett & Foster | Melin, C.
STOVES
Clark, S., & Co., Lim.
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Blyton, Astley & Co.
Fletcher, Fletcher& Stevenson
Gibson, R., & Sons
SUGAR OF MILK
Boehm, Fredk.
SULFONAL
Burroughs, Wellcome & Co.
May & Baker, Lim.
SURGICAL
Ayrton & Saunders
Bailey, W. H., & Son
Barclay & Sons, Lim.
Brady & Martin
Cocking, J. T.
Eschmann Bros. & Walsh
Hatrick & Co., Lim.
Haywood, J. H.
Liverpool Patent Lint Co.
Macfarlan, J. F., & Co.
Maw, S., Son & Thompson
Powell & Barstow
Quelch, H. C.
Richardson, John, & Co. (Leicester), Lim.
Robinson & Sons
Schutze, F., & Co.
Tyer Rubber Co.
Victoria Rubber Co.
Wood, Vincent
SYPHONS
Barnett & Foster
Bratby & Hinchliffe, Lim.
British Syphon Co.
Fordham, W. B., & Sons, Lim.
Idris & Co., Lim.
Kilner Bros. | Melin, C.
SYRUPS
Blyton, Astley & Co.
Fletcher, Fletcher&Stevenson
Idris & Co., Lim. [(Liquors)
TABLETS
Blyton, Astley & Co.(Sulphur)
Corsan, J. R. (Advertising)

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Gt. Tower St. Tea Co.
Pearse & Moeking
TEETHING PADS
Marriott, E., & Co.
THERMOMETERS
Bailey, W. H., & Son
Barclay & Sons, Lim.
Darton, F., & Co.
Evans, Sons & Co.
Hicks, J. J.
Newbery, F., & Sons
Perken, Son & Rayment
TINCTURES
Bieber, J. D.
Evans, Sons & Co.
Hewlett, C. J., & Son
TINS & CANISTRS
Gilbert, J. A., & Co.
TOBACCO
Singleton & Cole (Lim.)
TOILET
Allen & Hanburys (Chrisma)
Burroughs, Wellcome & Co.
Dee Oil Co., Lim. [(Lanoline)
Horn, O. E.
Hovenden & Sons
Lorimer & Co.
Quelch, H. C.
Ricksecker, Theo.
Truefitt, H. P., Lim.
TOOTH BRUSHES
Maw, S., Son & Thompson
TOOTH PASTE
Anglo-American Drug Co.,
Beecham, T. [Lim.
Jewsbury & Brown
Sutton, O., & Co. (Block)
Wilson, A. (Bunter's)
Woods, M. (Areca)
TRADE MARKS
Browne, T. B.
TRUSSES
Bailey, W. H., & Son
Evans, Sons & Co.
Haywood, J. H. | Wood, V.
URETHANE
Howards & Sons
Vaccine Association (Lymph)
VACCINATION
Vaccine Association (Lymph)
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Jeyes'SanitaryCompoundsCo.
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Lorimer & Co.
Rookledge, F. E.
Spratt's (Dogs)
Walkers, Troke & Co.
VINOLIA(Superf'tt'd)
Blondeau & Cie.
WEED KILLER
Smith, Mark, Lim.
WHOLSL & EXPRT DRUGGISTS
Allen & Hanburys
Allen, Stafford, & Sons
Balss Bros.
Barron, Harveys & Co.
Brady & Martin
Burgoyne, Burbidges & Co.
Bush, W., & Co.
Bush, W. J., & Co.
Clay, Dod & Co.
Evans, Sons & Co.
Evans, Lescher & Webb
Fassett & Johnson
Ferris & Co.
Fox, W., & Sons | Graf, F.
Goodall, Backhouse & Co.
Harker, Stagg & Morgan
Hearon, Squire & Francis
Hewlett & Son
Hill, A. S., & Son [Clarke
Hodgkinsons, Treacher
Lloyd, T. Howard, & Co.
Lofthouse & Saltmer
Macfarlan, J. F., & Co.
Murdoch, J. R., & Co.
Potter & Clarke
Richardson, J., & Co., Lim.
Symes & Co.
Thompson & Capper
Walkers, Troke & Co.
Willows, Francis & Butler
Woolley, Jas., Sons & Co.
Wright, Layman & Umney
WINES, SPIRITS
Armbrecht,Nelson&Co.(Coca)
Burrough, J.
Coleman & Co., Lim.
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FORMULA.—LISTERINE is the essential antiseptic constituent of Thyme, Eucalyptus, Baptisia, Gaultheria and Mentha Arvensis, in combination. Each fluid drachm also contains two grains of refined and purified Benzo-boracic Acid.

DOSE.—Internally: One teaspoonful three or more times a day (as indicated), either full strength, or diluted, as necessary for varied conditions.

LISTERINE is a well-proven antiseptic agent—an antizymotic—especially useful in the management of catarrhal conditions of the mucous membrane, adapted to internal use and to make and maintain surgical cleanliness—asepsis—in the treatment of all parts of the human body, whether by spray, injection, irrigation, atomization, inhalation, or simple local application, and therefore characterized by its particular adaptability to the field of

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Close Clinical observation has caused LAMBERT'S LITHIATED HYDRANGEA to be regarded by physicians generally as a very valuable Kidney Alterative and Anti-lithic agent in the treatment of

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DIETETIC NOTES,

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Red Oxyiodide of Bismuth.—Very superior to Iodoform. Odourless and unirritating. Powerfully antiseptic. Cures wounds, sores, eczema, intertrigo, chapped hands, sweating feet, &c. Price 1/6 per oz.; ointment (1 in 10), 3/6 per lb.

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Leaflets descriptive of above, and monthly Price Current, on application.
Special terms to Hospitals and Public Institutions.

WILLOWS, FRANCIS & BUTLER, WHOLESALE AND EXPORT DRUGGISTS,

ESTABLISHED 1751,

101 HIGH HOLBORN, LONDON, W.C.

CAPSULED "McK. & R." PILLS.

McKesson & Robbins : Originated 1870 : New York.

WHY SHOULD THE "McK. & R." PILLS BE PRESCRIBED?

1. Because they are prepared from materials of the highest quality only.
2. Because they are made according to the B.P. or other Standard Authorities, and therefore all the combinations are well tried and of recognised value.
3. Because they are taken pleasantly—being tasteless—and readily, being ovoid in form.
4. Because they are not subjected at any stage of preparation to the injurious action of heat.
5. Because the coating of *pure transparent gelatine* preserves the contents from oxidation.
6. Because they are always soluble, and the contents soft and quickly disintegrated.

LIST OF PRINCIPAL CAPSULED PILLS.

Aloes, all the B.P. combinations ..... 5 gr.
Aloes, Dilute (Dr. Hall Dinner Pill) ..... 4 gr.
Aloes Barb. | Pulv. Ext. Glycyrrh.
Saponis Pulv. | Theriaca, āā ..... 1 gr.
Aloes and Nux Vomica—
Aloes Sec. ..... 1½ gr. | Ext. Nucis Vom. .... ½ gr.
Alsin ..... $\frac{1}{10}$, ½, ½, 1 gr.
Aloin, various combinations.
Anti-Dyspepsia (Fothergill)—
Strychninæ ..... $\frac{1}{20}$ gr. | Pulv. Ipecac. ..... 2-3 gr.
Pulv. Piper Nig. ..... 1½ gr. | Ext. Gent. ..... 1 gr.
Arsenious Acid ..... 1-20, 1-50 gr.
Asafœtida, U.S. and B.P. ..... 5 gr.
Atropine ..... 1-100, 1-300 gr.
Blue Pill, B.P. ..... 1, 2, 3, 5 gr.
Blue Pill, with Colocynth and Hyoscyam. ..... 5 gr.
Calcium Sulphide ..... 1-10, 1-4, 1-2, 1 gr.
Calomel, Colocyn., and Hyosc. ..... 5 gr.
Calomel Co., B.P. ..... 5 gr.
Camphor and Hyoscyam ..... 2 gr.
Camphoræ. | Ext. Hyoscy., āā ..... 1 gr.
Cannabis Indica ..... 1-4, 1-2 gr.
Cascara Sagrada ..... 3 gr.
Cathartic Comp., U.S.P.
Ext. Jalap ..... 1 gr. | Hyd. Subchlor. ..... 1 gr.
Ext. Colocc. Co. .... 1 1-3 gr. | Gambog. ..... 1-4 gr.
N.B.—The ready solubility of the "McK. & R." Pills is readily proved by taking a dose of these.
Colocynth Comp., B.P. ..... 4, 5 gr.
Colocynth, other combinations.
Copaiba Compound—
Cubebæ Pulv. ..... 2 gr. | Mass. Copaib. ..... 1 gr.
Ferri Sulph. Exsic. .. 1-2 gr. | Tereb. Venet. .... 1 1-2 gr.
Corrosive Sublimate ..... 1-30, 1-20, 1-10 gr.
Croton Oil ..... 1-2 gr.
Diuretic—
Ext. Buchu, Potass. Nitrat. ..... 1 gr.
Scillæ Pulv. ..... 1-2 gr.
Emmenagogue—
Ferr. Sulph. Exsic. ..... 1 1-2 gr.
Thus, American ..... 1 1-2 gr.
Aloes Socot. ..... 1-2 gr.
Ergotin ..... 3 gr.
N.B.—Each Pill = 30 gr. ergot or 30 ms. fl. extract. This form is more reliable and uniform in effect and more agreeable than the liquid preparations.
Euonymin ..... 2, 3 gr.
Iodoform and Iodoform with Iron ..... 1 gr.
Ipecac. ..... 1-4, 5 gr.
Ipecac. Co. ..... 5 gr.
Ipecac. and Squill, B.P ..... 5 gr.
Iron Pill, B.P. Add. ..... 3, 5 gr.
Iron Arseniate ..... ½-8 gr.
Iron reduced by Hydrogen (Quevenne) ..... 1, 4 gr.
Iron and Quinine Citrate ..... 2 gr.

Laxative, Vegetable—
Res. Podoph. | Ext. Coloc. Co. ..... 1 gr.
Ext. Hyoscy. | Jalapæ
Ext. Tarax, āā ..... 1-4 gr. | Res. Leptand. āā .... 1-2 gr.
Ol. Menth. Pip.
Mercury, Biniodide ..... 1-16 gr.
Mercury, Proto-iodide ..... 1-20, 1-16, 1-8, 1-4 gr.
N.B.—Made from the absolutely pure *yellow* impalpable powder, free from mercury and from biniodide.
So-called "green" prote-iodide contains uncombined mercury.
Mercury with Chalk ..... 1 gr.
Morphine Muriate ..... 1-8, 1-4 gr.
Nitro-Glycerine ..... 1-200, 1-100, 1-50 gr.
Opium ..... 1 gr.
Opium and Camphor ..... 1 gr.
Opii Pulv. ..... 1 gr. | Camphoræ ..... 2 gr.
Pepsin, Pure ..... 1 gr.
Phosphorus ..... 1-100, 1-50, 1-30 gr.
N.B.—In no kind of Pill are the advantages of the "McK. & R." method better exemplified or more in request. No other brand of Phosphorus Pills is equally reliable for the administration of the unoxidised medicament.
Phosphorus and Iron—
Phosphor. Pur. .... 1-50 gr. | Ferr. Redact. ..... 2 gr.
Phosphorus, Iron, and Quinine—
Phosphor. Pur. .... 1-100 gr. | Ferri Carb. ..... 1 gr.
Quininæ Sulph. ..... 1 gr.
Phosphorus and Nux Vomica—
Phosphor. Pur. ..... 1-50 gr. | Ext. Nucis Vom. .... 1-4 gr.
Phosphorus and Quinine—
Phosphor. Pur. ..... 1-50 gr. | Quininæ Sulph. ..... 1 gr.
Phosphorus and Valerianate of Zinc—
Phosphor. Pur. ..... 1-50 gr. | Zinci Valer. ..... 1 gr.
Piorotoxin ..... 1-30 gr.
Podophyllin ..... 1-8, 1-4, 1-2 gr.
Quinine, Bisulphate ..... 1-4, 1-2, 1, 2, 3, 4, 5 gr.
Quinine, Sulphate ..... 1-4, 1-2, 1, 2, 3, 4, 5 gr.
Quinine Co. (Anti-Malarial).
Largely prescribed in America with excellent results.
Rhubarb Comp., B.P. ..... 5 gr.
Rhubarb with Blue Pill ..... 5 gr.
Salicylic Acid ..... 2, 5 gr.
Soap Comp., B.P. ..... 5 gr.
Squill Comp., B.P. ..... 5 gr.
Strophanthus ..... 1-20, 1-4 gr.
Strychnine ..... 1-50 gr.
Tonic Laxative (Fothergill)—
Quininæ Sulph. .... 2-3 gr. | Ferri Redact.
Strychn. ..... 1-30 gr. | Ext. Bellad., āā ..... 1-4 gr.
Valerianates, Iron, Quinine, and Zinc.
Warburg's Tincture and the same without Aloes.
Each Pill = 1 fl. drm. of the Tincture.
Zinc Phosphide ..... 1-4, 1-2 gr.
Zinc Valerianate ..... 1 gr.

Special Combinations of 3,000 or more Pills made and Capsuled to order for Hospitals, &c., at Special Quotations.

London Agency:—Messrs. S. Maw, Son & Thompson, 7 to 12 Aldersgate Street, E.C.
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The "Eureka" Medicated Pine Wool Felt, Scarlet Lambs' Wool Felt, The De Luxe, a beautiful woven Stockingnette, with a Backing of Wool nearly ¾ inch in substance, as soft as eider-down, in Scarlet, White, or Natural; also Fur Felt, Natural Wool Felt, Scarlet or Grey Flannel, or thin Felt, lined with Chamois, making the Largest Collection of styles and qualities in the market.

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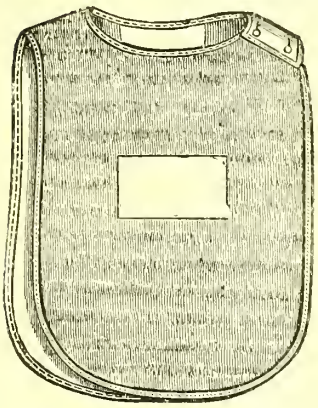

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AND
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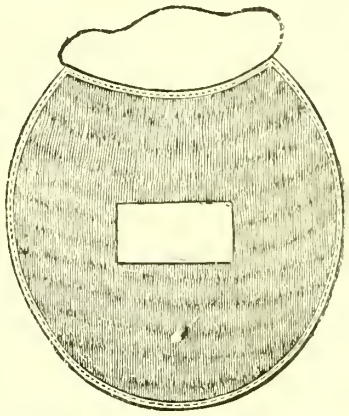
And to state about the probable amount of each required.



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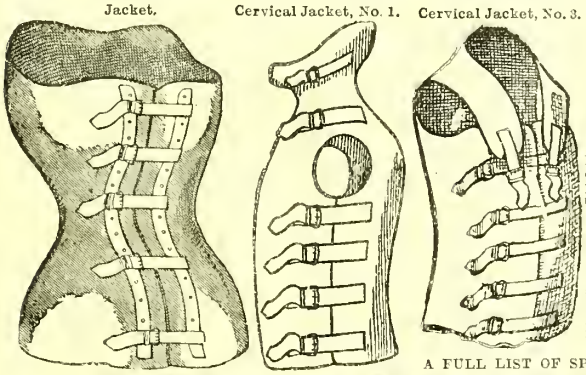
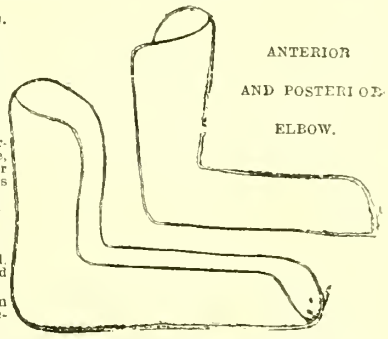
CURTAIN ROAD, LONDON.

COCKING'S ADAPTABLE PORO-PLASTIC JACKETS AND SPLINTS. Patentee and Sole Manufacturer, J. T. COCKING, PLYMOUTH.

Jacket. Cervical Jacket, No. 1. Cervical Jacket, No. 3.



JACKET
(In cases of slight deformity).
INSTRUCTIONS FOR MEASUREMENT.
Circumference at axilla.
" waist.
" hips.
Length from axilla to great trochanter.
In severe angular cases, circumference over apex of curve, position of ditto, and contour should be given; in lateral cases a description of the case.
In all cases it must be stated if for male or female.
CERVICAL JACKETS.
Same measurements required, and circumference at neck, and length from neck to axilla.
Any part of the Jacket can in the process of manufacture be left soft.



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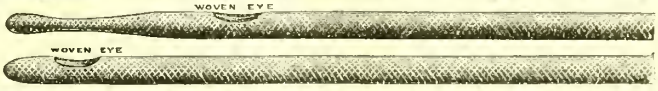
ESCHMANN BROS. & WALSH,
Inventors and Manufacturers of the
SOFT SILK FLEXIBLE CATHETER GUARANTEED WITH WOVEN EYES.

To be had of all Surgical Instrument Makers and Wholesale Houses.



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A. B. C. SYSTEM.

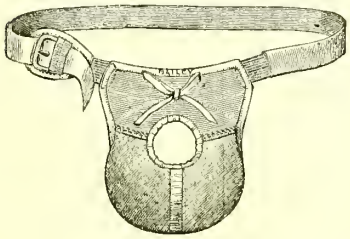

Fig. 1.

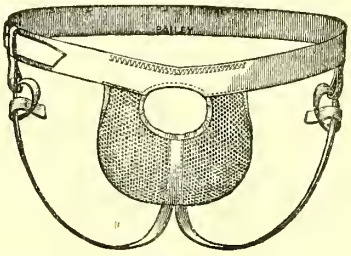

Fig. 2.

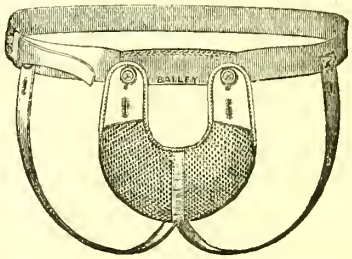

Fig. 3.

Cabinet of 2 dozen assorted, **30/-** USUAL DISCOUNT.

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GENTLEMEN,—Please repeat our last order for "Suspensory Bandages." We think your idea of arranging the sizes and qualities by the use of numbers and letters a very excellent one, as it is most convenient to the Chemist in ordering, and we find our customers make use of your method. It brings us many repeat orders.

Yours faithfully, ANDERSON & VIRGO.

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TRADE MARK.

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DISEASES OF THE LUNGS, WINDPIPE, NOSE & THROAT.

CLAIMS TO BE A

Specific for all Congestive and Inflammatory Conditions of the Respiratory Apparatus,

And will be found efficacious in

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None Genuine except such as bear the above Trade Mark "SPIRONE" and the Signature of the Inventor upon the Bottles, on the Label over the Cork, and on the Wrapper.

Retail Price, 4s. 6d. and 11s. per Bottle. Set of Apparatus for Administration, 15s.

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Diuretin supplied in 1-oz. bottles, 4/4 per oz.; quantities of 100 oz. and upwards, 4/2 per oz. Diuretin "Tabloids" in bottles of 25 and 100, 30/- and 84/- per dozen.

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Consisting of menthol, ammon. chlor., camphor, and cocaine, as suggested by Dr. Macnaughton Jones, is carefully and specially prepared with the view of preventing such a formula as this from caking and hardening. This snuff is used for the catarrh of influenza, for rhinitis, &c.

Menthol Snuff supplied to the trade in elegant metal cases at 8/- per dozen.

SACCHARIN.

We supply this sweetening agent in three forms—viz., Saccharin, Soluble Saccharin, and Saccharin "Tabloids." The "Tabloids" are portable, and of the greatest convenience to those away from home during the day, as a "Tabloid" or two will sweeten a cup of tea, coffee, &c., as well as sugar. A little spoon accompanies each bottle of the soluble saccharin, this spoon once or twice full is also sufficient to sweeten a cup of tea or coffee.

Saccharin, 1-oz. bottles 54/- per dozen. Soluble Saccharin, in ¼-oz. and 1-oz. bottles at 14/- and 46/- per dozen. Saccharin "Tabloids," in bottles 7/6 and 12/- per dozen.

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Kepler Extract of Malt supplied to the Trade in ¾-lb. and 1½-lb. bottles at 20/- and 36/- per dozen. Also in ½-kilo. and 1-kilo. tins for export only.

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The introduction of the Essence of Malt (Essentia Malti, Kepler) as a substitute for so-called nourishing

stouts and ales marks a real epoch in this direction. It is specially adapted for the use of the invalid, the convalescent, and weak persons generally, and may beneficially be prescribed in lieu of fermented malt liquors in all cases where its use is permissible. It is ten times more nutritious than the ordinary malt liquors, while—and this is often a very important consideration either with the physician or the patient—it is practically non-intoxicating. The Essence will be found very convenient for use on account of its syrupy consistence. For the same reason it is very desirable as a vehicle for the administration of various medicaments—as, for instance, iron, quinine, pepsin, strychnine, iodide of potassium, &c. As a food in fevers nothing can be more agreeable and nutritious than one or two tablespoonfuls of Essence of Malt added to an equal quantity of fresh cream or half a tumbler of fresh milk, and the glass filled with aërated water makes a delicious drink. This combination, containing the proper proportions of fat, carbohydrates, and phosphates, forms an ideal food for building up muscle, brain, and bone substance. It is an admirable addition to milk, which it agreeably sweetens, and also exerts a decided digestive or solvent action upon the casein. If a tablespoonful of the Essence be added to a glass of milk and the mixture warmed, acid may afterwards be added without producing the heavy clot of casein which is observed when vinegar or acid is added to ordinary milk. It is therefore desirable as an infant food; and a little salt or bicarbonate of sodium may be added for this purpose.

Supplied to the trade in champagne pints and quarts at 14/- and 24/- per dozen.

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No. 2 „ (1/- „) „ „ 1 Dozen.

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Sole Proprietors and Makers of "VASELINE."

OPHTHALMIC "TABLOIDS."

These constitute a new departure in our "Tabloid" section, and are intended to supply those agents commonly used in the treatment of the diseases and affections of the eye, in a convenient and portable form. We are assured that Ophthalmic "Tabloids" will be heartily welcomed on account of their many obvious advantages. Those marked in the list below with an asterisk are for use in solution; the others are intended to be inserted in the eyelid as they are. In ordering it is sufficient to quote the distinguishing letter only, for instance:—Ophthalmic "Tabloids" A (B., W. & Co.). The following have already been issued, and we hope to make additions from time to time. They are supplied to the trade in tubes, each containing 25 "Tabloids," at 6/ per doz. tubes.

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	Cocaine	1-200 gr.
C	Cocaine	1-20 gr.
F	Eserine Salicyl.	1-600 gr.
G	Eserine Salicyl.	1-500 gr.
	Cocaine	1-200 gr.
H	Homatrop. Hydroch.	1-400 gr.
*J	Hydrarg. Perchlor.	1-1000 gr.
K	Pilocarpine	1 400 gr.
M	Pilocarpine	1-500 gr.
	Cocaine	1-200 gr.
N	Homatrop. Hydroch.	1-600 gr.
O	Homatrop. Hydroch.	1-240 gr.
	Cocaine	1-24 gr.
*P	Boracic Acid (perfumed with Otto Roses)	6 gr.

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DRAPER'S INK
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When this Ink is used writing becomes a pleasure

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See "Chemist and Druggist," December 15th, 1874.

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For Infants, Children, and Invalids.

GOLD MEDAL AWARDED—HEALTH EXHIBITION, LONDON.
HIGHEST AWARD—ADELAIDE, 1887, and MELBOURNE, 1888.

The Lancet describes it as "Mr. Benger's admirable preparation."

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Wholesale of all Wholesale Houses.

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ESTABLISHED 1859.

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CONTENTS: VOL. XLIII. No. 13.

	PAGE
A Modern Merchant-adventurer	484
At the Counter	486
Australian News	471
Bankruptcies and Failures	477
Correspondence:—	
Miscellaneous Inquiries	492
Dispensing Notes	493
Legal Queries	494
Deaths	483
Decline of the Medicine-stamp Revenue	478
Editorial Notes:—	
Decline in the Patent-medicine Business	480
More about Otto of Rose	481
Lucifer Matches	482
Cholera and Cremation	483
Editorial Notes (*cont.*):—	
What is an Atom?	483
Whistling Fireworks	483
English News	468
Foreign and Colonial News	472
French Pharmaceutical News	471
Gazette	477
Irish News	470
Legal Reports:—	
Sale of Kay's Essence	47
Dealing in Precipitated Chalk	47
Marriages	48
New Companies	47
Practical Notes and Formulæ	48
Scotch News	47
Trade-marks Applied for	47
Trade Notes	48
Trade Report	48

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Summary.

WE report the death of the senior chemist in Australia, Mr. George Wilson, of Melbourne.

WE also have to report the death of a Lincoln chemist from prussic acid, taken with suicidal intent.

THE names of the candidates for the vacancies in the Irish Pharmaceutical Council are published in our Irish News.

IN our Editorial notes we comment upon the singular position which the otto-of-rose market has assumed recently.

A NORWICH chemist has been committed for trial by the Magistrates at Yarmouth for an alleged assault upon two little girls.

MESSRS. KEATING & CO. are proceeding against a doctor keeping open shop in Edinburgh, alleging that he has sold a spurious insect-powder for theirs.

AN English chemist has been fined 10*l.* for selling methylated spirit without a licence, and a Scotch chemist has been let off with 30*s.* for selling 2 gallons of the spirit on a Sunday.

THE St. Luke's Vestry, London, on the recommendation of their analyst, have decided to ask the Local Government Board to amend the Sale of Food and Drugs Act as to certificates.

THE question as to who was the inventor of lucifer matches is discussed in an Editorial article. Chemists and druggists appear to have had a large share in the origination of modern matches.

MORE evidence has been submitted in regard to the charge against Augustus Levermore and his brother in connection with transactions in precipitated chalk, and the prisoners have been again remanded.

SPECIAL attention is directed this week to the remarkable drop in the revenue from medicine-stamps, and the opinions of the heads of the principal London wholesale houses dealing in patent medicines have been taken.

MR. ARTHUR ROBOTTOM, who is well known in connection with the introduction of borax into England, has published his autobiography. A representative has interviewed him, and gives an account of both the man and the book.

THE Camberwell analyst reports very sorely on the recent dismissal of the summons against a chemist at the Lambeth Police Court for selling soda-water containing only a fraction of the B.P. proportion of soda bicarbonate.

THE markets are still quiet, but there is unmistakable evidence of improving trade. Jalap has been "run" upon this week, and there has been a fair amount of trade in quinine. The autumn business is looked forward to hopefully.

WE are able to give this week a fuller report of the defence in the Kay's Essence case, tried in Dublin last week, than we gave in our first report. The question in relation to the patent on which exemption is claimed is particularly interesting.

A MARRIED WOMAN who had got into debt with a firm of Devonshire chemists set up the defence that the plaintiffs must prove that she had a separate estate. As she had previously paid an account by a cheque signed by herself, the Judge held that to be sufficient.

A RETAIL CHEMIST has defeated a London wholesale firm in a dispute about the price of pearlash. The vendors, having quoted 23*s.* 6*d.* in October and charged 56*s.* in December, and not having notified the change, were nonsuited in their attempt to recover.

THE four so-called Indian oculists, who are being prosecuted by the London and Counties Medical Protection Society for alleged obtaining money by false pretences and maliciously wounding certain patients treated by them at Richmond, have been committed to take their trial at the next Old Bailey sessions.

English News.

The Editor is obliged to correspondents who send local newspapers containing items of interest to the trade. He will be further obliged if such paragraphs be marked in all cases.

A Syrup-room.

Messrs. Carter & Wright, of Bristol, manufacturers of aërated waters and essences, have recently constructed a room expressly for the purpose of preparing the syrups used for their beverages The object is to ensure the most perfect freedom from particles of dust or dirt of any kind. The room is 28 feet long, 18 feet wide, and 16 feet high. It contains twenty bell-shaped pans of enamelled iron supported by iron framework. The capacity of the pans varies from 60 to 100 gallons each. There is not a particle of wood in the room, and no corners or angles in any part. The door is of iron, and the floor, walls, and ceiling are of cement, the angles being rounded out. The floor gently slopes from the wall to the centre, which is provided with a gutter, and in the middle of the room is a water-hydrant of great pressure, with a hose attached of sufficient length to play on every square inch of the place. We believe Messrs. Carter & Wright are willing to show the construction of this room to any chemist who may be interested in it.

A Lincoln Chemist takes Prussic Acid.

Mr. John Smith, chemist and druggist, and manufacturer of the "Lincolnshire Embrocation for Horses," was on Saturday evening last found in an unconscious state in his bedroom at his residence in Lucy Tower Street, Lincoln. A medical gentleman being called in, it was ascertained that his condition was the result of taking a dose of prussic acid. He died about an hour afterwards. The deceased had for some time past been in a depressed state of mind, in consequence of monetary difficulties. Within the last twelve months he had disposed of his business in Guildhall Street, Lincoln, but he still carried on the manufacture of the embrocation named, and other articles. He had been known on many occasions to threaten to destroy himself by taking poison, and a few months ago, according to the evidence of his wife at the inquest, he was frustrated in an attempt to take morphia. During the temporary absence of Mrs. Smith on Saturday evening he carried out his expressed intention, and took a fatal dose of the acid in a glass of port wine. The Coroner's jury found that he was suffering from temporary insanity.

Fire.

Early on Saturday morning a fire was discovered on the premises of Messrs. Boot & Co., Sheffield. It was found that a quantity of rubbish in a bag in the cellar under the shop was on fire, attention having been attracted to it by smoke issuing through the grating. The fire-brigade was summoned and the fire put out promptly. It is believed to have been caused by someone carelessly throwing a lighted match down the cellar-grating.

Contracts for Disinfectants.

The Dartford Local Board of Health have accepted the tender of Messrs. Horrell & Goff, chemists, Spital Street, Dartford, for the supply of disinfectants, for 48*l.* 8*s.* 6*d.* Mr. James Cann (53*l.* 13*s.* 6*d.*) and Mr. Tucker (55*l.* 1*s.* 7*d.*) also tendered.

The Alverstoke Board of Guardians have accepted the following tender for the ensuing six months:—Mr. W. B. Smith, chemist, 47 High Street, Gosport, Sanitas soap, 30*s.* per cwt., and carbolic soap, 29*s.* per cwt.

Carbolic-acid Poisonings.

Andrew Brown, a seaman, aged 68, poisoned himself on September 15 with carbolic acid. He had been very despondent since the death of his wife, four months previously.

On the same date, a carpenter named George Scadding, aged 22, residing in Cardiff, whilst suffering from depression consequent upon being out of employment, went into an unfinished house, where he took a dose of carbolic acid, and afterwards shot himself in the forehead. He died from the effects of the poison in about an hour afterwards.

Mary Ann Hauralean, 35, wife of a chemical-labourer at Widnes, took carbolic acid on September 14, in mistake for porter, and died. She had lately given way to drink.

Miss Agnes Mary Plumridge, 25, died at Boston on September 14, from the effects of 2 oz. of carbolic acid which she had taken. She had not been well for some time, and the jury found that she had committed suicide while temporarily insane.

The Soda-water Prosecution.

At the fortnightly meeting of the St. Giles's, Camberwell, Vestry, held on September 14, the public analyst (Dr. Frank Teed) presented his report for the past quarter. The case was mentioned in which a local chemist was prosecuted for having sold as soda-water an article which upon analysis was found to contain only 1½ grain of bicarbonate of soda to the pint, though, according to the British Pharmacopœia, it should have contained 30 grains. The analyst pointed out that the vendor was himself a pharmaceutical chemist, and therefore might have been presumed to know what was required by the British Pharmacopœia. The defence set up was to the effect that soda-water prepared in accordance with the B.P. would be almost undrinkable. If such an excuse as that was to be held valid in law, they might as well put an end to all prosecutions under the Food and Drugs Act. He (the analyst) had yet to learn that prussic acid, black draught, tincture of steel, or any other pharmaceutical preparation was necessarily a palatable and wholesome summer beverage. In the particular sample of soda-water which had been referred to, the amount of bicarbonate was so small that he very much doubted whether any had been put in at all. He had an extensive knowledge of natural waters which were largely used for potable purposes, and he had in some cases found them to contain even more bicarbonate than was in the sample in question. The decisions of magistrates in similar cases at Brentford and Edmonton conflicted with this one, although in those cases the soda-water was purchased from publicans. By this decision soda-water was practically placed beyond the control of the Act. The analyst suggested that the question should be carried to a higher court.

Heavy Fine for Selling Methylated Spirit without a Licence.

At Alfreton, on September 15, Wm. Henry Wilbraham, chemist, Somercotes, was summoned for selling 1 pint of methylated spirit without being duly licensed to do so, at Somercotes, on July 3. Defendant had been cautioned, and had promised on two occasions to either discontinue the sale of the spirit or get a licence. The Bench considered it was a most serious offence, and they imposed a penalty of 10*l.* and 10*s.* 6*d.* costs.

A Chemist Objects to Vaccination.

At Blackburn Petty Sessions, on Saturday, fifteen persons were summoned for neglecting to have their children vaccinated. The defendants included Mr. William Henry Grimshaw, chemist, 37 Clifton Street, Blackburn, and he, together with the others, was fined 10*s.* and costs.

Charge of Robbing a Chemist's Shop.

At Hastings (Sussex) Police Court, on Saturday, two men, named George Wilkinson and Henry Mitchell, were charged with being concerned together in entering the shop of Mr. Jameson, chemist and druggist, Harold Place, Hastings, and stealing 2*l.* 10*s.* George F. Lemmon, assistant to prosecutor, stated that he slept on the premises with a fellow-assistant named Watkins. On September 7 witness was last in, and passed through the shop. Everything then was apparently in order. Shortly before 6 o'clock the following morning he was aroused by a policeman, and on proceeding downstairs he found the trap-door of the cellar open, and the till, in which there was 30*s.* overnight, empty. Prosecutor's porter gave evidence to the effect that on the previous night he locked the premises up safely. A labourer named George Wenman stated that Wilkinson came to him about 7 o'clock on the morning of September 8, and asked for water to wash his face with. Prisoner's face was very dirty, and he told witness that he had had a bit of luck the previous night.

He said that a lady who had known his father gave him 2*l.* on hearing that his parent was dead. Police Constable Duedney stated that at 5 o'clock on the morning of September 8 he saw the prisoners, in Trinity Street. He heard one of them say, "The constable is having a good look at us this morning." Ten minutes later, he found the back door of Mr. Jameson's shop open. At 8 o'clock he arrested Wilkinson. Detective Coppard stated that when he arrested Mitchell he said, "I only had 7*s.* 6*d.*; I did not know how much there was in the till. I took it, and handed it up to Wilkinson. If I had done everything he wanted me to, I should have been hung." Wilkinson had nothing to say to the charge. Mitchell said, "I am very sorry I had anything to do with it." Both prisoners were committed to the Assizes.

Birmingham Chemist Trippers.

The excursion in connection with the Recreation Section of the Midland Pharmaceutical Association took place on Wednesday, September 13, to Solihull. During the afternoon a cricket match and other games were indulged in. After tea at the George Hotel a concert was held, during which the President said he was sorry there were not so many present as on former occasions, but he was quite sure all present that day had enjoyed themselves. He also stated that in the Cricket Section 14 matches had been played, 6 won, 3 lost, 4 drawn. The Tennis Section, too, had had a successful season, and in the Cycling Section a number of runs had been made to places of interest all round Birmingham. The company arrived in Birmingham shortly before 11.

Wishes to go Back to Beerselling.

At the adjourned Brewster Sessions for the borough of Cardiff, on Monday, before Mr. T. W. Lewis, Stipendiary, and other magistrates, Mr. Belcher, solicitor, applied on behalf of Mr. Alderman Thomas Vaughan Yorath, chemist, of Cambridge Road, for a licence to sell beer by retail, to be consumed on or off the premises. He said that many years ago Mr. Yorath was the occupier of a beerhouse called the Princess Royal. He also filled the position of sub-postmaster. Owing, however, to the development of the postal business, Mr. Yorath ultimately abandoned the licence, and utilised the premises as a chemist's shop and post-office. Recently the requirements of the postal authorities had outgrown the accommodation, and it was now proposed to build a new post-office for that district adjoining the Corporation Hotel. This would be manned by clerks from the head office, and therefore Mr. Yorath's occupation would be gone. Mr. Belcher urged that if the beer-licence were necessary years ago, it was more necessary now, seeing that the number of licensed houses had been diminished by one, owing to the closing of the Cross Keys Inn, and that there had been an increase of population in the neighbourhood. Mr. Alderman Yorath was called into the box, and said that he proposed to remove the chemist's business, and to place the premises in their original condition if the licence were granted. Mr. George David, solicitor, opposed on behalf of a number of ratepayers, who contended that there were already a sufficient number of licensed houses in the district. The Bench refused the application.

Married Women as Debtors.

At the Torquay County Court, on September 16, Messrs. Badlam & Sloman, chemists, of Torre, summoned Mrs. Arundell, of Sylfaen, The Avenues, for 6*l.* 15*s.*, balance of account due. Mr. Ffinch, who defended, said plaintiffs must prove that his client had a separate estate. Mr. Clode, for plaintiffs, produced a letter sent by defendant with a cheque drawn on her bankers, paying for certain things and ordering more. Mr. Ffinch said the money might have been paid into her account by her husband, but his Honour held that in that case she had a separate estate directly the money was paid in. Defendant said all the money she had was included in her marriage settlement. Her husband had been away for a long time, and was away now, and paid money into her account. Verdict for plaintiffs, with costs.

Paying for a Chemist's Window.

At the same County Court, Mr. Bathe, chemist, of Abbey Road, claimed 1*l.* 3*s.* 9*d.* from a fisherman named Ching, for repairing the glass of his shop-front. On April 29 last, defendant, who was the worse for liquor, stumbled and fell through plaintiff's shop-window, causing such damage that it cost the amount sued for to repair it. Defendant said he slipped on a piece of orange-peel, and his arm went through the window. He offered to make good the damage, and had a brother in the trade who would have done it. His Honour thought the charge for repairs rather excessive, and reduced the amount to 18*s.*, which he ordered defendant to pay at the rate of 5*s.* a month.

Young People and Disinfectants.

At the usual fortnightly meeting of the members of the Holborn Board of Works, held on Monday evening, in the board-room at the Town Hall, Gray's Inn Road, Mr. E. Hagger, in the chair, the Sanitary Committee reported that orders had had been given that no disinfectants were to be supplied to persons under the age of 16, and that poison-labels be affixed to the bottles. The action of the committee was approved.

The Charge of Assault against a Chemist.

James Robinson, chemist, Norwich, who was charged at the Yarmouth Police Court with an indecent assault on two little girls, came up, on remand, on September 13, when further evidence was heard, and the case was again remanded. On Tuesday last, Harriet Read, 14 years of age, stated that on Thursday, September 7, the prisoner spoke to her when she was out with her younger sister Laura. He asked her to kiss him, but she refused. He also asked her if the child was her sister, and if he could meet her that night. She told him no. Prisoner was stooping down at the time on one knee, but she did not see him do anything. After further evidence Mr. Browne, for the prisoner, contended that the charge was a trumped-up one and that no jury would convict. The Magistrates, however, considered that the case was a serious one, and sent the prisoner for trial at the Quarter Sessions.

Wine-licences.

Mr. A. J. Horrell, chemist, of 4 Albion Street, Broadstairs, has been granted a licence to sell medicated wines.

A wine-licence has been granted to Mr. J. W. Butterfield, chemist, 33 Market Street and 18 Green Street, Blackburn.

Mr. E. Pratt, chemist, of High Cross, Barnstaple, has obtained a wine-licence at the recent Sessions.

Technical Education at Plymouth.

The Committee of the Plymouth Technical Schools have acceded to the request of the local chemists, and decided to establish a class in materia medica for pharmaceutical students. Intending students are requested to apply to the Secretary at once, so that the necessary arrangements can be made to commence forthwith.

Contracts with the Sheffield Unions.

The Sheffield Guardians, at their meeting on Wednesday, accepted the contract of Mr. A. W. Graham, chemist and druggist, West Bar, for the supply of drugs for the ensuing half-year; and of Mr. C. Credland, Queen Street, for the supply of paint, oil, and colour. The Ecclesall Guardians on the same day accepted the contracts of Mr. J. M. Furness, Milton Street, and Mr. Alfred Wood, Ecclesall Road, for the supply of drugs, paints, &c., to them.

The Price of Pearlash.

In the City of London Court, on Wednesday, before Mr. Deputy-Registrar Tattershall, Messrs. W. and C. Pantin, wholesale druggists, 147 Upper Thames Street, E.C., sought to recover 1*l.* 16*s.*, the balance of an amount due for the sale of 1 cwt. of pearlash to Mr. Henry Jeffries, chemist and druggist, of Guildford.

The plaintiffs' case was that in October last they sent the defendant a quotation of pearlash at 23*s.* 6*d.* per cwt., stating that they would be happy to supply him with any quantity on receiving the defendant's order in course of post. In December following, or two months afterwards, the defendant sent an order for 1 cwt. of pearlash, which he required for a customer. The pearlash was duly sent by the plaintiffs, but no invoice accompanied the parcel. About

fifteen or sixteen days afterwards the invoice was sent, and then the sum of 56*s.* per cwt. was charged. The reason the pearlash was quoted at 23*s.* 6*d.* was because they had a lot of cheap pearlash by them in October, while in December they had to order from the manufacturers, and the price charged to the defendant was the same that they had to pay.

The defendant said he paid the originally-quoted price to the plaintiffs. He had been for over forty years in the chemical and drug trade, and he had never heard of two sorts being supplied, nor had he ever met with such fluctuations in prices as were now alleged by the plaintiffs. He ordered the pearlash at 23*s.* 6*d.* per cwt., and not 56*s.* He delivered it to his customer as soon as he received the pearlash, but it was only after he had parted with the goods that he received the invoice from the plaintiffs. He at once wrote, suggesting that the plaintiffs had made a mistake, but they declined to reduce the price.

The plaintiffs said they were willing to supply the pearlash in October at 23*s.* 6*d.*, but they could not do so in December. Even they did not know what the price would be when they sent the defendant the goods, and it was only upon receipt of the invoice that they saw that the sum was increased. It was the fault of their manufacturers, if anyone, that the price was not supplied to the defendant at the time of the delivery of the pearlash.

The Deputy-Registrar said that was unfortunate for the plaintiffs, but he did not think the defendant could be held responsible for it. Considering that the plaintiffs quoted 23*s.* 6*d.* in October, he thought the plaintiffs ought either to be bound by that price in December, or else intimate to the defendant what the extra charge would be at the time of the delivery of the pearlash. The defendant had parted with the goods when he received the invoice, and therefore could not send them back if he wanted to. He must find for the defendant, and would allow him his costs.

Alleged Theft from a Drug-stores.

At Malvern last week, Mr. J. Walford, hairdresser, of Malvern, was charged with stealing three pieces of match-boarding, value 2*s.* 6*d.*, the property of the Drug-stores Company. Mr. Brew, managing director of the Stores, preferred the charge. It appeared that the defendant's premises abut upon those of the prosecutor, who had some match-boarding in an outbuilding, where it was placed in March. In May, the prosecutor alleged he saw the defendant sawing up match-boarding, and communicated with the police before speaking to the defendant about it. An apprentice of Mr. Walford produced an invoice showing that the defendant had bought wood from a Mr. Broad, and this wood the witness said was that which he helped the defendant to saw up. The Bench examined the invoice, and dismissed the case, saying that no jury would convict the defendant, whose costs were allowed.

The Food and Drugs Act.—An Amendment Required.

At the meeting of the St. Luke's Vestry, on Tuesday, a report was presented relative to a prosecution at the Clerkenwell Police Court of a dairyman for abstracting 25 per cent. of the cream. The solicitor to the Vestry (Mr. J. A. Wild) said the prosecution had failed because the public analyst (Mr. A. W. Stokes, F.C.C., F.I.C.) had not stated in his certificate the exact constituents of the sample submitted to him. Mr. Stokes attended before the Public Heath Committee, and undertook for the future to give certificates containing the ingredients of each sample of food, &c., submitted to him. The committee recommended the Vestry to direct the attention of the Local Government Board to the whole facts of the case, and that the Board be asked to take the necessary steps to amend the Sale of Food and Drugs Act so as to remove the difficulties of obtaining convictions in like cases. This the Vestry resolved upon. Of thirty other samples submitted, Mr. Stokes said there was only one matter for prosecution—viz., butter on bread, which contained 90 per cent. of margarine. In this case the defendant was fined 2*l.* and costs.

Charge Against a Druggist.

William Miller, a Kirton druggist, was remanded at Stockport on Monday, charged with performing an illegal operation.

Stealing from a Chemist's Shop.

At Swansea Police Court, on Monday, John Baker White, described as an American clerk, admitted being drunk and disorderly in Union Street, and also stealing two bottles of cachous, value 5*s.* 6*d.*, from the shop of Mr. John Davies, chemist, Oxford Street. The prosecutor caught prisoner by the coat as he was leaving the shop with the bottles, but he slipped off his coat and ran away. Sent to gaol for fourteen days with hard labour.

Indian Oculists Committed for Trial.

At the Richmond Magistrates' Court, on Wednesday, Kream Bocesh, Shahah Bedin, Heron Shah, and Khair Din, describing themselves as Indian oculists, were brought up on remand, and charged with obtaining money by false pretences, and unlawful and malicious wounding. Mr. George Anderson Critchett, senior ophthalmic surgeon at St. Mary's Hospital, London, said he had examined that morning persons who had been treated by one or other of the prisoners, and the operations were most improper ones, and in some cases the cutting of the temples which the patients had undergone, was mere cruelty, while the blistering only caused useless pain. Some of the instruments used were blunt, dirty, and rusty. Mr. Henry W. Dodd, assistant-surgeon at the Royal Westminster Ophthalmic Hospital, and Mr. J. B. Lawford, assistant-surgeon at the Royal London Ophthalmic Hospital, gave corroborative evidence. The prisoners were committed for trial at the Old Bailey on the charge of obtaining money by false pretences, and conspiring and obtaining money with intent to defraud.

Irish News.

The October Examinations.

The quarterly Pharmaceutical Chemists' Assistants' examination is intended to be held on Wednesday, October 11. The last day for receiving applications for same will be Wednesday, September 27.

The quarterly Registered Druggist examination (at Dublin) will be held on Thursday, October 12. The last day for receiving applications for same will be Thursday, September 28.

An examination will also be held at Belfast (if twelve apply) on or about Tuesday, October 17. Applications for same must be received not later than Tuesday, October 3.

The Annual Meeting

of the Pharmaceutical Society of Ireland will be held at the Society's house, 67 Great Mount Street, Dublin, on Monday, October 2, at 7.30 P.M., when an election for seven members of the Council will take place. The following members retire by rotation:—E. M. Hodgson, J.P., William James Baxter, George D. Biggs, Joseph Stewart, M. R. Whitla, Robert Simpson, Richard Sunner. Of these, Messrs. Sunner and Stewart do not offer themselves for re-election; and Mr. J. J. Bernard, M.P.S. (Booterstown), and Mr. E. P. Murray, M.P.S. (Clones), have been nominated to fill the vacancies.

A Vacant Examinership.

Mr. J. J. Bernard, M.P.S., has resigned the position of Examiner for the qualification of assistants to the pharmaceutical chemists under the Pharmaceutical Society of Ireland. Mr. John Evans, M.P.S., has been temporarily appointed to conduct the October examination, subject to the approval of the Lord-Lieutenant of Ireland. An election to appoint Mr. Bernard's successor will be held at either the October or November meeting of the Council.

Scotch News.

Selling Methylated Spirit on a Sunday.

On the urgent representation of May Murdoch that she wanted some methylated spirit for polishing to use early on Monday morning, Mr. Robert Black, chemist and licensed

retailer of methylated spirit, Justice Street, Aberdeen, let her have 2 gills of the stuff on Sunday, July 9, and was prosecuted for doing so by an Excise officer at Aberdeen last week. Mr. Black admitted the offence, and a fine of 30*s.* was imposed. The maximum penalty is 100*l.* This was said to be the first prosecution of the kind which has taken place anywhere.

A Keating's Powder Action.

On Thursday of last week, in the Bill Chamber of the Court of Session, Lord Kinnear granted interim interdict in the note of suspension and interdict presented by the proprietors of Keating's insect-powder against W. J. White, surgeon and physician, carrying on business as a chemist and druggist at 46 Canongate, Edinburgh. Complainers stated that the respondent has been in the habit of selling as "Keating's Powder" a powder which was not manufactured by them, and that he thus fraudulently availed himself of their reputation in order that he might find a ready sale for a spurious and inferior insect-powder.

A Pauper Price-list.

At a meeting of St. Cuthbert's Parochial Board, Edinburgh, on Friday of last week, the medical committee submitted a price-list of medicines to be supplied to paupers, and reported that the druggists in each of the districts under the control of the Board—mainly the Western and South-Western parts of the city—had agreed to the list. The Chairman (Sir Jas. Gardiner Baird) said that if the fixing of those prices should lead the druggists to adulterate or weaken the medicines, it would do almost more harm to those who required medical treatment than it would do good to the board by the very small saving it might make. He did not think that in any other profession or trade a price-list like the one before them would be accepted. Mr. Morton said he thought that if they dealt with respectable druggists there would be no adulteration. Miss Burton: If they were capable of adulteration they would do it without that. (Laughter.) The Chairman explained that his observations were not intended to find fault with the list, but just to lay before them the suggestion that the subject might be worth inquiry. The list was then approved of. The price-list, printed copies of which can be obtained from the Parochial Board Office, Castle Terrace, Edinburgh, is by no means unreasonable. For instance, stock pills are generally priced at 4*d.* per dozen; tinctures at 4*d.* and 6*d.* per oz.; syrups (ordinary), 2*d.* per oz.; Parrish's, 1*s.* 4*d.* per lb.; castor oil, 1*d.* per oz.; sulphate of quinine, 6*d.* per drachm.

The Edinburgh Pharmacy Athletic Club

held their second annual excursion last Monday. A party, numbering about forty, tripped to Linlithgow. A Ladies' *v.* Gentlemen's cricket-match was played in the forenoon. Dinner was served in the New Town Hall, after which boating on the lake, cricket, &c., were engaged in; and, after tea, songs filled up the evening.

French Pharmaceutical News.

(From our Paris Correspondent.)

THE CHEMICAL ARTS.—The French Society for Encouraging National Industry has recently issued a syllabus of the prizes in connection with the chemical arts, to be offered for competition during the three forthcoming years. These comprise six prizes of 2,000f. each and two of 1,000f. for 1894; five of 2,000f. and one of 1,000f. for 1895; while for the year 1896, two prizes only, each of the value of 2,000f., are announced. For next year the subjects include "How to utilise the residues of manufactories;" "The manufacture of glass destined for chemical purposes;" "The discovery of processes capable of supplying, by any kind of chemical transformation, useful organic compounds, such as quinine, cane-sugar, &c.;" "A scientific study on the physical and mechanical properties of glass," &c.

TIC-DOULOUREUX.—At the last meeting of the Paris Academy of Medicine, Dr. Jarre read a paper on the cure of spasmodic neuralgia of the face, in which he sought to show how this painful affection is produced. He concludes that tic-douloureux is constantly symptomatic of cicatrised nervous lesions, which have their seat in the extremities of the nerves comprised in the alveolar region; and the chronic alveolo-dental arthritis and the infectious accidents occasioned by the eruption of the lower wisdom-tooth are the most common causes of the alveolar cicatrised lesions, which are the base of spasmodic neuralgia of the face. The treatment which he advocated is resection of the cicatrised alveolar region. Ten patients, with whom every form of internal or external medical treatment had failed, have been cured by this method.

A HUNT AFTER MEDICAMENTS.—Under this heading the Paris *Temps* published recently a description of the outdoor relief at some of the private hospitals. These establishments are frequented by a special class of people, who, for various reasons, avoid publicity. The most frequented of these, says *Le Temps*, is the Rothschild Hospital, situated 76 Rue de Picpus. In addition to the care given to indoor patients, the administration makes a free distribution of medicaments three times a week, which are only delivered, however, on the certificate of a doctor belonging to the hospital. The number of outdoor-relief patients is limited to forty for each visiting-day. At 2 o'clock every second afternoon of the week the porter of the hospital stands at his door and distributes forty tickets; the sharpest in the crowd generally secure these. They enter the doctor's consulting-room by threes. Those able to go away are given the necessary medicaments, while any patients seriously ill are offered a bed in the hospital. These consultations give a certain picturesque appearance to this remote corner of the capital. Towards midday, upwards of a hundred and fifty wretched people may be seen assembled, in rain or sunshine. Almost every conceivable kind of disease is there represented, and the patients gaze at each other, speculating on their chances of admission. Sympathy have they none. Thus, a young girl approaches, thin and pale, in an advanced stage of consumption. She can scarcely walk, and seems likely to excite the greatest pity. Not at all. Some fool will say, "Oh, she is in luck, and will have another turn at the Malaga wine and quinine bottle." The others laugh; no one remonstrates. The patients who do not get in come next time, and the concierge thinks that many of them go partly for recreation, as their more favoured brethren would attend an afternoon concert.

THE SALE OF ANTISEPTIC TISSUES.—The Pharmaceutical Society of Bordeaux have taken the initiative in drawing attention to an infraction of the pharmacy law in the sale of antiseptic medicaments and dressings by dealers in surgical instruments, and others not possessing the diploma of pharmacist. The Committee of Public Hygiene, having been consulted officially on the subject, deputed two of its members, Messrs. Ballet and Regnauld, to make the necessary investigations. These gentlemen find that the abuse has its root in the fact that, before the discoveries of Pasteur and Lister, makers of surgical instruments and others sold the bandages, lint, &c., necessary for the use of surgeons. When antiseptics came gradually into general use the trade still remained in the same hands, to which was added in course of time that of antiseptics and chloroform used for anæthesia. This explains the introduction of the practice without by any means justifying it, and Messrs. Ballet and Regnauld, in the report they have issued on the subject, add:—"The law, in according to pharmacists the right of delivering, against presciptions, active or dangerous medicaments, had not the slightest idea of constituting a privilege in their favour. The sole object was to give the public a guarantee of security, founded not only on the studies which the diploma proves, but also on the supervision of the commissions of inspection. So that, as a medicament distributed in tissues, or diluted in solutions destined for dressings, loses none of its therapeutic and poisonous qualities, the sale of this form of medicine should be confined to pharmacists." In consequence of that report the Committee of Hygiene has passed a resolution to the effect that, basing their view on existing legislation, they are of opinion that all surgical dressings impregnated with antiseptic substances, and all solutions destined for medical use, are in the category of external medicaments, and that, therefore, in the public interest, all such preparations should be exclusively in the hands of persons possessing the pharmacist's diploma

AUSTRALASIAN NEWS.

The subjoined notes are based upon information contained in the August issue of the *Chemist and Druggist of Australasia*:—

Saffron *v.* Measles.—Measles are raging fiercely in New Zealand, a large proportion of those attacked being adults. As the epidemic increases the demand for saffron, which appears to be the great popular specific, also grows. "The drug," says our Melbourne journal, "must have a very good effect on measles to judge by the way a mother will 'cure' a family of six with 'threepenn'orth' of it."

A New Zealand Beef-extract Company.—A company has recently been formed in Wellington for manufacturing beef-extract by a process patented in Australasia. The extract was submitted to all the leading medical men before the company was formed, and the most satisfactory reports received from them. It is said that owing to the low price of beef in the colony the extract can be manufactured much more cheaply there than in England. The company are also manufacturing potted meats of various kinds and concentrated table-jellies.

Death of the Oldest Chemist in Australasia.—Through the death of Mr. Geo. Wilson, of Victoria, Australasia loses her oldest chemist in business. Mr. Wilson was found dead near his residence, at West Portland, Vic., on June 14, lying prone on the ground, a halter in his hand. It is believed that he had taken a horse to the paddock near by, and was returning when death suddenly struck him down. Mr. Wilson was born in 1819, at Atwick, in Yorkshire, and arrived in Sydney in 1839, after being apprenticed to a surgeon in Hull. He managed a pharmacy in N. S. Wales in that year, but meeting Kennedy, one of the early explorers, he tramped overland to Melbourne, going afterwards to the South Seas as ship's surgeon. On his return he started in business at Portland, where his brother (the Rev. J. Y. Wilson) had resided since 1840. He went afterwards to Melbourne, and was appointed the first resident apothecary to the Melbourne Hospital. Some months prior to the opening of the business of the late Mr. George Lewis, he established, with Dr. O'Mullane, the business still known as "Bowen & Co.," in Collins Street. Here he remained for ten years, but soon after the outbreak of the gold fever, which had led to a great falling-off in his business, he sold out and returned to Portland, opening a shop in Julia Street, where he carried on a lucrative business until within the last year or so, when he disposed of it to Mr. H. M. Martell. Now Mr. Wilson is dead, Mr. W. T. Pinhey, of Sydney, is the senior pharmacist in business in Australasia.

Retrenching Queensland.—Australia having fallen upon evil days, the Queensland Government, finding it difficult to make both ends meet, are economising in all directions. Many mouldered and purely ornamental branches have been lopped away from the Budget tree, but unfortunately some promising green shoots have also fallen under the pruning-knife. In the Estimates for 1893–94, which were laid upon the table of the House of Assembly on June 19, medicine and pharmacy in Government departments have been seriously affected. Mr. John Bearkley, M.P.S., dispenser at the Dunwich Benevolent Asylum, has received notice that his position is abolished, the medical superintendent having been deputed to do the work of dispenser, also at a reduced salary. The office of inspector of hospitals for the insane is not provided for. At the Goodna Asylum one assistant-superintendent is dispensed with, besides six attendants. Twenty-two medical officers have been abolished. The medical officer at Brisbane is to receive two months' notice, and his duties will be undertaken by the health officer at Brisbane, who also holds the position of visiting surgeon to St. Helena, Dunwich, and Lytton, receiving 700*l.* instead of 400*l.*; and 350*l.* additional is provided as fees to medical officers in lieu of salary. In the Department of Agriculture the much-respected and efficient colonial botanist, Mr. F. M. Bailey, is "retrenched," and his excellent department abolished. Mr. Bailey will have the sympathy of every pharmacist of Queensland. The museum vote is cut down. The already very much underpaid curator, Mr. C. W. de Vis, M.A., is reduced from 400*l.* to 300*l.*, and most of the other scientific officers have had their salaries cut down.

Foreign and Colonial News.

Chinese Opium.—China is not only growing opium for her own consumption, but is beginning to export it, in competition with British India. Chinese-grown opium was received last year for the first time at the ports of Singapore and Penang in the Straits Settlements.

Packing Salt in the Dutch Indies.—We gave particulars, at the time, of the conditions under which a prize of 10,000 florins (about 850*l.*) had been offered by the Dutch-Indian Government for the most practical method of packing salt for retail sale in small parcels which will prevent the substance becoming damp. The money has now been awarded to Mr. C. von Belzberg, of Ischl, Austria, who proposes to pack the salt, either in powder form or compressed into bricks, in a waterproof cover of Lenz's *papier-mâché*, after having previously removed all particles of moisture by drying. Mr. von Balzberg's method has been subjected to practical tests and found to answer thoroughly. Its application costs about $\frac{1}{2}$*d.* a packet for bricks, and $\frac{1}{50}$*d.* per packet for powder. The salt-trade is a Government monopoly in the Dutch Indies.

The New Austrian Army Filter.—On the occasion of the recent autumn manœuvres in Galicia a new filter was supplied to the Austrian troops, which is said to have shown itself to possess extraordinary merits, and which is the joint invention of Baron Kuhn, the chief of the general staff, and Count Westphalen. The filter consists of a container of waterproof cloth, funnel-shaped at the lower end, and with a hole at the bottom. Two wire sieves are superposed within the container—one near the mouth, the other just above the funnel-shaped lower half. Before using the filter, a handful of asbestos is introduced between the two sieves. The filter is suspended over a vessel, and the tainted liquid poured into it. The upper sieve arrests the larger substances which taint the water. Twelve thousand of these filters have been distributed to the troops.

The Asphalt-mines in Syria.—Four asphalt-mines are known to exist in Syria. Of these, the one at Hasbaya, about forty miles south-east of Beirut, is the most important, and the asphalt obtained from it is considered the best, with the exception of that of the Dead Sea, which floats in small quantities on the surface of the water and drifts ashore, where it is picked up by the Bedouin Arabs. Until 1860 these asphalt-mines were almost entirely neglected, and the fellahs used to dig, free of tax, small quantities, which they applied to the stems of their vines to destroy worms that ravage the vineyards. After some ineffectual attempts at working the Hasbaya mine by a company, it was leased to the firm of Absy & Co. for a term of ten years, commencing in 1888. The condition was that 65$\frac{1}{2}$ per cent. of all the asphalt extracted should go to the agents of the Imperial private treasury, the mine being the private property of the Sultan. During the last five years the amount of asphalt obtained by Messrs. Absy & Co. from the Hasbaya mine is estimated to have been 5,400 tons. The company's success has been mainly due to their skilful engineering and methods of excavation. No asphalt is at present extracted from the other mines in Syria, as the local Turkish authorities strictly prohibit their being worked. The Syrian asphalt is subject to no tax except an export duty of 1 per cent. It is rumoured, however, that a new rescript issued by the Sultan enjoins that no export dues shall be hereafter imposed on that article. The exact quantity of asphalt now in stock cannot be ascertained, it is probable, however, that not less than 3,000 tons are stored for sale by the agents of the Imperial treasury and the mining company. The asphalt obtained from the Syrian mines is exported to Europe and America without undergoing any process of preparation. From statements made by a number of reliable persons, it seems very probable that asphalt exists in large quantities in all the mines which have been discovered, and that thousands of tons might be extracted every year if the local authorities would allow the mines to be worked.

'Tis thyme that makes the old man sage.

Legal Reports.

The Sale of Kay's Essence.

Our report of the interesting case in Dublin last week, in which the Pharmaceutical Society of Ireland prosecuted a grocer named Leonard for selling Kay's essence of linseed, alleged to be a poisonous compound, was somewhat abbreviated in the latter part. It may be well, therefore, that we should give the case for the defence somewhat more fully.

Mr. Campbell, Q.C., who appeared for the defence, said that though the prosecution was directed against Mr. Leonard, the result, if it happened to be adverse, would in effect hit Mr. Kay. The peculiar thing about the case was that though the Act under which the prosecution was brought had been in operation since 1875, this medicine had been sold before that date; and yet it was only after the Act had been in force for eighteen years that the Society had suddenly awoke to the idea that the sale of this medicine by Leonard was an infringement of the Act. The medicine is sold all over England, Ireland, and Scotland, and is actually used in the Brompton Hospital, being a well-recognised specific for the treatment of consumptive patients. Counsel then analysed the Acts which regulated the sale of poisons in Ireland—viz., the Sale of Poisons Act (1870) and the Pharmacy Act (1875). The idea was for a number of years, he said, that the restrictions were confined to the sale of things themselves poisonous, but did not extend to compounds or medicines which might have one of the scheduled poisons as an ingredient in it. It was certainly never contemplated that the restriction was to extend to compounds containing only infinitesimal portions of the poisons if they were as a whole innocuous. In February, 1893, a case was brought against a man named Piper, by the Pharmaceutical Society of England, for selling chlorodyne. In that case, in which it was practically proved that the contents of the bottle would poison an adult, the Court held with great doubt and difficulty that the Act did cover the case, and that it was intended to govern not merely poisons such as were in themselves poisons, but compounds, provided the result of the whole compound was a mixture dangerous to human life.

Mr. Swifte: *Primâ facie*, that case is against you.

Mr. Campbell: Yes, on the evidence of Professor Tichborne; but I will give evidence of a very different character; and it is a distinct authority in my favour if I establish that this compound can in no human possibility be dangerous, owing to the antidotal qualities of these other drugs. We will demonstrate that Professor Tichborne is inaccurate as to the proportions of morphine, and that the remaining elements in this compound are antagonistic, and antidotal in their effects. I will refer you to the opinion given by the late Attorney-General Webster. You will find it referred to in the *Times* Parliamentary Debates, page 402.

Mr. Clay: What have we to do with the opinion of the Attorney-General?

Mr. Campbell: I am entitled to refer to it. I state this as a fact within my own knowledge, that the late Attorney-General and the present Attorney-General have advised the Public Prosecutor in England that the Act is not intended to apply where the total result of the composition is not poisonous. I will not push it further than to say, after that case and the dictum for which I am now contending, no prosecution has since been instituted in the case of a compound which, while it did contain an element within the schedule of poisons, was not dangerous to human life. On another point Mr. Clay certainly amused me. There is no doubt patent medicines are excluded from the Act of 1875 and the Act of 1870. Section 31 of the Act of 1875 says: "Nothing in this Act contained shall extend to or interfere with the selling of patent medicines."

Mr. Swifte: I drew Mr. Clay's attention to the generality of that, but I see there is an exception.

Mr. Campbell: Mr. Clay says, "Oh, that only enables a qualified chemist to sell patent medicines." He could sell them without that exception, because he could sell poisons; and why it required this to enable the qualified chemist to sell patent medicines I cannot understand. The question, however, does arise, which Mr. Clay to some extent anticipated, whether the fact that the patent had expired did not in effect shut this compound out from being considered a patent medicine. In the argument in this case of Piper, Mr. Poland, who so frequently prosecutes in these cases, admitted that it would apply to the case of a medicine which had been once a patent medicine, of which the patent had expired. In a similar case to this, Mr. Lushington, the London Police Magistrate, also said he would follow the definition in the Stamp Act.

Mr. Swifte: What case is that?

Mr. Campbell: It was a case of the Pharmaceutical Society *v.* Davenport.

Mr. Swifte: If that is reported it would be very important to have it.

Mr. Campbell: I am afraid it is not. But if your Worship would not think it too much trouble you could cause a communication to be made to the Magistrates' Clerk, and I am sure he would let you know anything that you wanted. The Society in that case said, "No; your patent has run out," and Mr. Lushington said he would follow the definition given in the Stamp Act.

Mr. Swifte: When did the case come on?

Mr. Campbell: It is reported in the papers of May 7, 1892, so it would not be difficult to find out the exact date. It was heard at Bow Street.

Mr. Clay: I have reason to believe that this was not the case of a patent medicine at all.

Mr. Campbell: In that case Mr. Lushington decided that, in coming to the conclusion whether a medicine was a patent medicine or not, he would follow the definition in the Stamp Act: "Which have at any time heretofore been, now are, or shall hereafter be prepared, uttered, vended, or exposed to sale under the authority of any letters patent." It was suggested by Mr. Clay—indeed, he said he would show—that we had not followed our patent, but that we had got a patent for one thing and were selling something else. Let us see what is in this suggestion. First of all, it is not necessary to tell you that specifications are intentionally vague. If Kay, in taking out this patent in the beginning, had given the exact quantities, it would have been open to a rival chemist to come along, vary the quantities, and take out a patent for a similar mixture. All the Patent Office requires is sufficient indications of the character of the ingredients. One is not surprised, perhaps, in this court, or in any court, at what Professor Tichborne swore in this case, but the length he went as an advocate, as distinguished from a witness, was certainly astonishing. He said that no person reading that specification would expect to find morphine or chlorodyne in this compound; that it would give no indication to any person that there was going to be morphine or chloroform in the compound when made up. What turns out to be the case? You cannot have extract of papaver without morphine. The ordinary extract contains 20 per cent. of morphine. In the Pharmacopœia extractum papaveris shows 20 per cent. of morphine. However, this point about the specification is really one you will not have to enter into. It is too absurd to think of a man getting a patent for one thing and selling a wholly different thing. We now come to the contents of the bottle. You remember the evidence of Professor Tichborne. I do not think his analysis, on his own showing, was a satisfactory one. He appears to have taken a fifth of a bottleful and analysed it. He suggested that the poisonous parts had a habit of falling to the bottom, and he then assumed that it ran through the entire bottle or mixture. He admitted to me afterwards that the entire amount of morphine is $\frac{10}{72}$ of a grain, which is far less than the quantity he said he found in the fifth. There is a chemist at Mr. Kay's factory, who will prove to you that there is never more than $\frac{10}{72}$ grain of morphia in the bottle; of sulphuric ether $1\frac{1}{4}$ drop—the Pharmacopœia dose is 20 to 60 drops. Therefore the sulphuric ether is infinitesimal. There are $11\frac{1}{4}$ drops of chloroform, and then all is mixed. The liquor that forms the basis is alcohol, and there are $33\frac{1}{4}$ drops of that. The rest is tartar emetic and ipecacuanha, and the result of this composition is that so long as the remedy is taken in the prescribed doses they are all right. Supposing a child were to swallow the entire bottle, it is absolutely innocuous, because the other drugs would act as an emetic. If you come to the conclusion that the total result was noxious

to man, woman, or child—I mean by that poisonous or dangerous to life—then I admit I am hit by the Act. If, on the other hand, you come to the conclusion—as I have no doubt you will after you hear the evidence I intend to produce—that this compound is perfectly innocuous, then you will be bound to decide against the prosecutors. There is hardly a sweet made that has not some tinge of poison in it, no soap that does not contain a poisonous element. Matches are poisonous,

Mr. Clay: We do not eat matches.

Mr. Campbell: I am only using this by way of illustration, to show that these gentlemen really want to establish a monopoly for themselves. I fail to see where they can stop, if the sale of everything with an element of poison in it is to be prohibited. It would give them a monopoly of tobacco and whisky, and every other compound that the ingenuity of man could suggest.

Mr. Swifte: The bottle says "Poisonous in Over-doses." Does not that cut away your argument?

Mr. Campbell: We are not bound by the label. There may be cases, if a child were suffering from some other disease or complaint, it might produce poisonous results; and I think any person selling it is wise to use this precaution. They label drugs as poison which under certain circumstances might produce disastrous results. You will hear the evidence of these gentlemen. They will tell you that, speaking from actual knowledge, the composition is such that the portions of chloroform and morphine in it are rendered absolutely innocuous. Mr. Kay takes the wise precaution of telling the public there are ingredients in this that are poisonous.

Mr. Swifte (interrupting): It is quite possible it might be done for abundant caution. Goods are frequently marked "Glass with care" when there may be no glass there at all.

Mr. Campbell: It is an element you will consider, and Mr. Clay was right in making use of it. Dr. Foy tells me that if a child bathed in a vat of it, whatever effect it might have on its stomach it would not poison it.

Mr. George Arthur Shaw, examined by Mr. Campbell, said he was a pharmaceutical chemist of England, and a Fellow of the London Chemical Society. He was manager of Mr. Kay's laboratory, and this compound was prepared under his superintendence. It was prepared in strict accordance with the specification. Witness supported the statements of counsel in regard to the proportions of the principal ingredients.

He was then asked if, by any accident or design, a child were to swallow the entire contents of the smaller bottle, would there be the slightest danger?—A child would be very sick, and vomit everything it had taken.

And in that way the dangerous element would be got rid of?—Yes.

Was Dr. Foy asked to take that specification and make up a prescription on the basis of it?—Yes.

You heard Professor Tichborne say that in the analysis that he made he used what is called the "lime" test?—Yes.

Could he get an accurate result that way?—I should say not.

Why?—Because when he got to the end the drug he got would not be pure morphine, but a substance taken from the other elements in the compound as well.

Cross-examined by Mr. Clay: How long have you been in the employment of Messrs. Kay?—Two years.

When did you get your certificate which enabled you to act as a chemist?—In April, 1891.

And between April, 1891, and the time you went to Messrs. Kay, where were you?—I was in Dr. Attfield's analytical laboratory.

And you went to him after you got your certificate?—I was a student with him before I got my certificate, and I continued on.

Will you tell me who measures out the ingredients put into this Kay's Essence?—I do.

Have you nobody to assist you?—No.

You weigh out all the stuff yourself?—Yes.

Tell his Worship in what measure, whether a gallon, 10 gallons, or 2 gallons, do you make this up at a time.

Witness: Am I obliged to answer that question?

Mr. Clay: Certainly.—Witness: 300 gallons.

That is in one vat?—Yes.

Will you tell me how much of the fluid extract of papaver you put into that 300 gallons—without calculating?—50 oz.

Have you got a formula from your employers, or have you the arranging of the amount?—I have a formula.

Have you got it with you?—No.

Mr. Clay: I ask for it.

Mr. Campbell: Well, you cannot get it. We have not got it here.

Mr. Clay: Do you make that papaver or do you buy it?—Make it.

How do you make it?—From poppies.

Just give us the ingredients to show what strength it is?—I made it up in such a way that when the product is finished every minim is equal to $\frac{1}{72}$ grain of morphine.

How do you prove that?—When it is finished I estimate it, and if it be too strong then water is added, and if not strong enough it is further——

How do you estimate the amount of morphine?—By the Pharmacopœia process.

Not the lime process referred to by Professor Tichborne?

Witness: Show me the book, and I will show you. You are looking at the wrong one.

Mr. Clay handed witness the Pharmacopœia.

Witness (handing back the book): I use that with a slight variation, seeing that I am dealing with a liquid, and not with a solid.

Practically there is no fluid extract of this thing in the Pharmacopœia?—Nobody said there was.

How often do you use chlorodyne?—What do you mean by chlorodyne?

Do you use Dr. Collis Browne's chlorodyne now and then?—No.

Do you ever use it?—No.

Are you certain?—Quite certain.

When you are away, who manufacturers it?—Nobody.

Are you the only person in England who can manufacture it?—I am the only person in Messrs. Kay's employment.

Do you ever use this chlorodyne given here in the Pharmacopœia?—That is not chlorodyne.

Is not this what is known to the trade as representing Collis Browne's chlorodyne?—It is said that it represents it.

Do you, in order to get this preparation, use this formula?—No; we use a formula of our own.

Then it is a preparation of chlorodyne you put in?—We put in a chlorodyne made up in our own way.

Was that in addition to the extract of papaver?—No.

In substitution for it?—No; the chlorodyne we make contains extract of papaver.

Would you be surprised to hear that there was no tartar emetic in either of these bottles?—I would, decidedly.

How much did you put in?—4 oz. in the 300 gallons.

Then the case, I understand, that you make here in answer to Mr. Campbell is this—you produce for sale to the public an important medicine for young children, and you have so prepared it that if it does not kill them it will make them very sick?—No.

Mr. Campbell: He never said any such thing. He said if the entire bottle was taken it would have the effect of making a child sick.

Mr. Clay: Is your case this—that you put in poison, and, in the event of there being too much poison, you put in tartar emetic?—If the medicine is abused, and the poison is taken in excess, it will make the child sick.

Mr. Clay: You admit the poison is there?

Mr. Swifte: I do not understand the witness to say that every child taking this medicine would be sick. What I understand him to say is that if children take it in over-doses they will be sick.

Mr. Clay: That is so. (To Witness.) Do you pour these different compounds into this 300 gallons yourself?—Yes.

Do you mean to say that you carry this all to the vat yourself and put it in?—I have a mechanical arrangement, and fill it from the laboratory.

Is the rest made up of water?—There is water in it.

How much water?—I do not measure the water.

Do you measure the other ingredients?—I measure everything except the water.

Was that label sent out by your establishment?—Yes.

Why was the word "chlorodyne" struck out?—Because we put on the bottle the ingredients of chlorodyne.

Dr. George Foy, examined by Mr. Campbell, said he was a Fellow of the Royal College of Surgeons, a medical writer, and the author of several books, and was in practice in the City. He had written works on the very drugs which are the subject of this prosecution. He said the presence of extract of papaver involved the introduction of morphine, and that ether chloricus would involve the introduction of chloroform. Ether chloricus and morphine produced a substance called chlorodyne. There was no recognised formula for chlorodyne. It varied largely. He had gone carefully through the articles mentioned in the specification, and, assuming the compound to be made in the dimensions given by Mr. Shaw, the compound resulting was, in his opinion, harmless. There was no danger to a child so long as the recognised doses were taken, and, if increased, the antagonistic elements were increased too.

Do you, as an experienced man who has made a speciality of this particular matter, say that the entire quantity of this compound, if swallowed by a child, would not have any injurious effect?—It would be attended absolutely without injury. It would simply cause the child's stomach to turn.

Could it by any possibility poison a child?—It could not by any possibility or ingenuity.

Cross-examined by Mr. Clay: Is any one of the chlorodynes you know made from papaver?—All of them.

There are 10 drachms in this bottle, and take it that there is only the $\frac{10}{72}$ part of a grain of morphine in the whole bottle—that would not kill?—A quart of this compound would not kill.

You have heard of Woodman and Tidy; is it a fair authority?—No, it is not.

He lays it down that $\frac{1}{12}$ grain of hydrochlorate would kill an infant?—Yes.

Mr. Campbell: That is, plain hydrochlorate, with nothing else in the bottle.

Mr. Clay: Have you the same contempt for Taylor as for the book from which I have just quoted?—It is the worst book ever published.

Mr. Clay: He says that $\frac{1}{90}$ part of a grain of opium was known to have killed an infant. I suppose he is all wrong?

Witness: He said a woman may run for three years in the family-way, and he was laughed at by the whole medical world. It only shows to what absurdities a man may go.

Mr. Clay: In Blyth it is stated that cases are recorded of infants dying from extremely small doses—from $\frac{1}{90}$ part of a grain of opium—but then I will give you the benefit of what he adds—that he cannot help thinking that some mistake has occurred.

Witness: Very probably.

Mr. Swifte: Does it say anything about the question of morphia?

Witness: Myles and Pepper is the proper book to get.

Mr. Clay: What do you say about Walter Smith?

Witness: A capital book.

Mr. Clay: Well, he lays it down that a single drop is known to have killed a child. You put your opinion against these four writers?

Witness: No, I do not. We are talking of a totally different thing.

Mr. Clay: Did you ever prescribe this for any of your patients?—We never prescribe patent medicines.

You are resting upon the evidence of Mr. Shaw?—Upon the sworn statement of Mr. Shaw.

Mr. William Thompson, member of the Council of the Institute of Chemistry of Great Britain, F.C.S., and public analyst for Stockport, said he had examined this compound of Kay's.

Mr. Clay: I object to this evidence. The witness may have examined some bottles that might or might not have been specially prepared.

Mr. Campbell: Where did you get them?

Witness: They sent me several samples, and then I sent my boy out to get some of the samples.

Mr. Swifte: If he has not examined these particular bottles I am afraid there is a difficulty, Mr. Campbell.

Mr. Campbell: Surely it would not be fair, if a gentleman is to procure a bottle of this and carry it off and give us no opportunity of analysing it ourselves, that we should be precluded from giving in evidence an analysis of the very same compound. (To Witness.) Where did you get these different specimens that you examined—where were they got?—At a place called Lewis's.

Mr. Swifte: Did you buy any of it yourself?

Witness: No.

Mr. Swifte: Then that is enough.

Mr. Campbell: I could not bring up each vendor in Manchester to say that he sold a bottle of this to Mr. Thompson (To Witness.) Were you brought bottles containing Kay Compound Essence of Linseed?

Mr. Clay: I object.

Mr. Campbell: Did you go to Messrs. Kay's factory and take specimens from the vat?

Mr. Clay: I object. (To Witness.) Have you got the bottles purchased in Manchester?—Yes.

Did you purchase these yourself?—No.

Mr. Clay: Then I object to your giving any evidence whatever about them.

Mr. Swifte: There is a difficulty about admitting this evidence.

Mr. Campbell: I propose to produce these two bottles, and ask if the substance in them is the same as that in the bottles already given in evidence.

Mr. Swifte: I am afraid——

Mr. Campbell: Well, I will not waste further time. (To Witness.) You have seen this specification?—Yes.

Any qualified person preparing this compound and complying with the terms of that specification, will he of necessity introduce morphine?—Yes.

That is by reason of the fluid extract of papaver being specified?—Yes.

And will he also introduce chloroform?—Yes.

That is in consequence of the ether chloricus?—Yes.

The witness also supported Dr. Foy as to the innocuous character of the medicine.

You have heard the evidence of Professor Tichborne as to the manner in which he said he analysed a particular portion of this compound?—Yes.

Is that likely to be fallacious?—It is fallacious. You could get no result by treating such a minute quantity as even the whole bottle. It contains so many compounds which would come out by that process that it is absolutely valueless.

You cannot segregate them?—Not in minute quantities.

You are, in fact, assuming the residue to be morphine?—That is so, undoubtedly.

You have had no opportunity of analysing any portion of the bottles that were made the subject-matter of this prosecution here?—No.

Cross-examined by Mr. Clay: You will credit somebody else in your profession with experience?—Yes.

You had no opportunity of analysing these bottles?—No.

Upon what grounds, then, do you say that Professor Tichborne is wrong?—I say that these bottles contain certain quantities of organic compounds. The process which he mentions as having adopted, while perfectly good when you have a comparatively clear liquid to deal with, is not when you are dealing with a compound made as this is, with so many ingredients.

What process would you adopt?—I tried it by different methods, and found I could get no results of any agreement. His process I found absolutely worthless.

Is your admission, then, as a gentleman of twenty years' experience, that supposing a death took place from the use of this compound, you could not tell how much poison was in it?—I could not tell the quantity.

Mr. Clay: I am happy to say we have people on this side of the water who could. (To Witness.) You heard Mr. Shaw examined?—Yes.

Assuming that it is so well mixed that the quantity was the same all through, is there a sediment?—Yes; but that sediment would not contain an excess of morphia.

Explain what you mean?—Because morphia is easily soluble in a slightly acid solution, and under those conditions one might as well speak of the precipitancy of sugar as of the precipitancy of morphia.

Tell me where you get any acid in that specification?—Acetic acid is used in the preparation of squills, also benzoin.

Sir Charles Cameron, examined by Mr. Campbell: You have seen this specification?—Yes.

And heard the evidence of Mr. Shaw?—Yes.

Assuming that this was made up in accordance with the specification, and that the quantities of these drugs were the same as deposed to by Mr. Shaw, would the result be to produce a poisonous substance?—I do not think it would.

Is that owing to the introduction of these antagonistic or antidotal drugs?—I would not use the word "antagonistic." Though it contains substances which are by themselves poisonous, it contains other substances which are emetics, and the emetic quantities are approached before the poisonous properties of the other drugs. There is a very minute dose of antimony present, but there is a full dose of squills, and, having regard to the amount of morphine present, a great many doses should be taken before the poisonous quantity is reached.

Taken consecutively?—Taken simultaneously, and in the case of children the compound would be certain to produce a nauseating effect if taken in excess. The stomachs of children are peculiarly susceptible to nauseating effects.

You have heard the form of Professor Tichborne's analysis?—I would rather not express any opinion on that matter. Professor Tichborne is a gentleman for whom I have a great regard.

If you are analysing a compound that contains in small quantities a number of various drugs, are you likely to be misled as to what the result of the analysis may be?—In general terms, having a great experience, I will say that it is not easy to get a pure alkaloid.

Would that apply to morphine?—It would apply to all alkaloids. I do not say it is impossible, but it is difficult.

Cross-examined by Mr. Clay: Did you ever hear of a soothing-syrup that was nauseating?—No.

Would you be surprised to hear that three teaspoonfuls of this mixture narcotised a person over 23 years of age?—I am never surprised.

You say it would be impossible to arrive at the amount of morphia in these bottles?—Very difficult.

Is this process that Professor Tichborne adopted one that you would have adopted?—Very likely.

And you would have arrived at an estimate?—I think it is extremely difficult to separate from such a complex liquid as this the precise amount of morphia in a weighable form.

It is not so difficult that you would say that it cannot be done?—I will not say that.

Mr. Campbell: I close now, putting in the patent specification.

Mr. Swifte: You are certain this is the first prosecution since this medicine has been in existence?—One other prosecution against Mr. Leonard; but it was allowed to go by default. Until last year this medicine was never challenged.

Mr. Clay: I am not at all sure of that.

This concluded the evidence.

Mr. Campbell said he would not address the Court.

Mr. Clay: I will only say a word. There are three aspects of the case which I would like to submit to your Worship. First of all, I say this patent has run out, and that it is not a patent medicine; secondly, I say that if it be a patent medicine it can only be sold—retailed by a qualified registered chemist or druggist.

Mr Swifte: These are both points of law.

Mr. Clay: And the third is that they have not followed the specification, according to the evidence of Professor Tichborne, the only person who analysed it, and whose testimony is uncontradicted on that point.

Mr. Swifte adjourned his decision until October 12.

Singular Dealings in Precipitated Chalk.

(Third Hearing.)

At the Guildhall, on Tuesday, September 19, Augustus Levermore, 40, of 8 Lime Street, E.C., chemical merchant, and Charles Randolph Levermore, 45, of 649 Old Kent Road, underwent a further examination on a charge of conspiring to defraud a number of persons.

Mr. Leopold Goldberg conducted the prosecution. Mr. R. H. Humphreys (Messrs. C. O. Humphreys, Son & Kershaw) defended.

The previous hearings have been reported in these columns.

Detective Roper gave evidence at some length, the gist of which was that he had seen the two prisoners together at an arch in the Blenheim Grove, Rye Lane, Peckham. From here he had noticed Augustus go to his place in Lime Street, and Charles to the Old Kent Road. They seemed to employ men at this arch; it appeared to be a place for the manufacture of boiler-composition.

By Mr. Humphreys: He saw no precipitated chalk there.

Mr. Isidore Magnus, of the firm of Haller & Co., chemical merchants, 86A Leadenhall Street, was recalled, and stated that he had received letters from J. Saunders, giving an order for a quantity of precipitated chalk, which was to be according to sample, and to be delivered at the rate of 5 tons per month. He had never dealt in the article before, and, as he knew no one but Augustus Levermore dealing in this article, he applied to him for quotations. Having got these, he wrote to J. Saunders, North Road, New Cross, and stated that he could supply precipitated chalk according to sample at 13*l.* 10*s.* per ton. He (witness) received an order from Saunders, which he believed to be a genuine business order. Writing for a reference, the reply was: "There will be cash on the receipt of every delivery order, and I have no objection to send you 10*l.* as an earnest of my completing the order." On July 29 last Saunders sent him 10*l.*, and he forwarded him a receipt. This induced him to give an order for the chalk to Augustus Levermore, who objected to a clause being inserted to the effect that if at any time his firm were not wanting the chalk they should pay Augustus Levermore 7*s.* 6*d.* per ton by way of compensation. To this Augustus would not agree, but asked, "On what condition does your buyer propose to pay?" Witness told him, "Cash against delivery." Augustus replied, "That will be all right," and he accepted the contract with Augustus. On August 4 he received a letter from Levermore & Co.: "Please send cheque for first delivery of precipitated chalk." He sent cheque for 71*l.* 3*s.* 4*d.* to Augustus Levermore, still believing Saunders to be a genuine customer. On the same day he (witness) received a letter from Saunders, saying, "Sorry to say I shall not be able to buy the chalk." Witness at once wrote to Augustus Levermore acquainting him with the facts, but he declined to cancel the contract, saying, "I will try and sell it for you."

By Mr. Humphreys: He had lost the amount of the cheque sent to the prisoner Augustus, less the value of the stuff and the 10*l.* deposit.

Accepting a hint from the Bench,

Mr. Goldberg said: I propose materially to shorten this inquiry. I shall give evidence in the three cases already referred to—namely, Messrs. Haller & Co., Messrs. Fuerst Brothers, Philpot Lane, and Messrs. Tyrer & Co., chemical-works, Stratford; and I shall put in some letters which will show where attempts had been made by the prisoner to defraud.

Mr. Humphreys: I am sure Mr. Goldberg will only do what is right. This case, I suppose, must go elsewhere; therefore Mr. Goldberg can give me notice of any evidence he intends to call at the Old Bailey. Mr. Humphreys then recalled Inspector Wright, and asked him if he was sure that at the time he arrested Augustus Levermore, and told him that his brother had traded under different names (Saunders, Randolph, and Williamson), Augustus said, "I know nothing about that; I never heard of those names before; there must be some mistake."

Wright: Yes; Augustus Levermore said that.

Mr. Humphreys: I am instructed that Augustus Levermore did not say so.

The Alderman: I shall adjourn the case to Thursday. In consequence of what has transpired to-day, it is in my opinion a case of master and servant. Therefore I shall raise the bail of Augustus Levermore to two securities in 500*l.*, or one in 1,000*l.*; and I shall reduce the bail of Charles Randolph Levermore to two in 100*l.*, or one in 200*l.*

Bail was justified.

Messrs. Spies Brothers, 102 Fenchurch Street, E.C., who were named as among the firms with whom contracts for precipitated chalk had been made, ask us to state that they only received an inquiry from a C. Williamson, of 694 Old Kent Road, but declined to entertain the proposed business.

Bankruptcies and Failures.

Re JOSHUA E. JONES, Holton Road, Barry Dock, Chemist and Druggist.

THIS debtor has filed a statement of his affairs. He estimates his gross liabilities at 3,037*l.* 19*s.* 6*d.* (unsecured creditors, 987*l.* 3*s.* 2*d.*; secured, 1,349*l.* 7*s.* 10*d.*; partly secured, 417*l.* 2*s.* 6*d.*). The amount expected to rank for dividend is 1,117*l.* 13*s.* 6*d.* The assets are estimated to produce 275*l.* 9*s.* 7*d.* The debtor alleges as his causes of failure, "pressure by creditors, and heavy expenses in working-up a shipping connection." The Official Receiver states that the bankrupt has lodged a proposal to pay a composition of 7*s.* 6*d.* in the pound. He commenced business in August, 1890, with a capital of 150*l.* His books of account do not show his financial position at any time, and in the deficiency account the result of his trading has not been introduced. He has kept a cash-book, and states that he has occasionally taken stock, the last stocktaking being about six weeks before the date of the receiving order.

Unsecured Creditors over 10*l.*

	£	s.	d.
Barron, Harveys & Co., London	38	4	10
Davids & Son	25	6	4
Edwards & Son, London	90	14	1
Gilbertson, H., & Son, London	16	5	9
Harding & Son, Bristol	51	5	3
Heath & Smith	33	13	9
Hill & Son, London	83	16	9
Hudson & Kearns, London	22	8	3
Jones, David, Cardiff	200	0	0
Jones, Mrs. Elizabeth, Barry Dock	100	0	0
Maw, S., Son & Thompson, London	72	4	5
Ross & Sons (Limited), Belfast	15	16	7
Sanger & Sons, London	83	17	4
Scriven, Geo., Brierley Hill	10	19	11
Sharp Brothers, London	18	10	5
Smith & Co., London	13	11	3
Southall Brothers & Barclay, Birmingham	25	1	3
Sickness and Accident Assurance Company, Edinburgh	12	13	0
Warwick Brothers, London	10	2	7

Creditors Fully Secured.

Harris & Co., Cardiff	55	9	11
Lloyd's Bank, Barry Dock	271	7	11
Pain & Son, solicitors, Newport	1,022	10	0

Creditors Partly Secured.

Metropolitan Bank of England and Wales	417	2	6

Re ALEXANDER DUNCAN, The Square, Bournemouth, Chemist and Druggist.

THE summary of accounts under this failure shows gross liabilities amounting to 3,621*l.* 19*s.* 11*d.*, of which 2,660*l.* 13*s.* 11*d.* is due to unsecured creditors. The assets are estimated to produce 1,557*l.* 8*s.* 5*d.*, from which 211*l.* 5*s.* 2*d.* has to be deducted for the claims of preference creditors, payable in full, leaving a deficit of 1,346*l.* 3*s.* 3*d.*

The debtor alleges his failure to have been caused through legal expenses, amounting to 400*l.*, some three years ago, and the serious illness of himself for three years, during which time he was mostly away from the business; also to keen competition by the Stores.

A meeting of creditors was held last week, at which it was decided to appoint Mr. W. Judd, accountant, London, as trustee, to act in conjunction with a committee of inspection, consisting of the following gentlemen:—Messrs. Lucas, J. Thompson, J. H. Hugill, F. J. Hanbury, and H. White.

OF certificates of registration issued to alkali and kindred works over the whole United Kingdom for the year ending March 31st last the number is 1,103, being 32 more in number than in the previous year; the amount of duty charged is 3,530*l.*

New Companies.

NATIONAL DRUG COMPANY (LIMITED).—Capital 15,000*l.*, in 1*l.* shares. Objects: To carry into effect a certain agreement made between J. G. Miller and E. B. Grant, for the purchase of the right of manufacture and sale of two patent medicines respectively known as "Proctor's Crystal" and "Proctor's Balm," and to carry on the manufacture of the two said patent medicines, &c. The first subscribers (who take one share each) are:—A. P. Manton, South Bank, Surbiton, gentleman; E. Grant, 16 St. Helen's Place, E.C., gentleman; J. O. R. Perry, 25 The Grove, S.W., gentleman; A. C. Smith, Upper Holloway, N., bookkeeper; R. C. Hobson, Leyton, clerk; H. M. Turner, Brixton Hill, gentleman; E. Cant, 16 Liverpool Road, Nunhead, gentleman. Registered without articles of association.

HYDROCARBONS PRODUCTS SYNDICATE (LIMITED).—Capital 50,000*l.*, in 1*l.* shares. Object: To acquire certain patents granted to J. H. W. Stringfellow, relating to the manufacture and purifying of gas; also as mechanical engineers, gas-engineers, and manufacturing chemists in all or any of their respective branches. The first subscribers (who take one share each) are:—E. H. Woods, 6 Victoria Street, S.W.; E. H. Stevenson, 38 Parliament Street, S.W.; J. W. Burchell, 5 The Sanctuary, Westminster, S.W.; J. C. Hart, 6 Victoria Street, S.W.; J. H. Hills, 6 Victoria Street, S.W.; G. H. Leane, 21 Queen Anne's Gate, S.W.; N. L. Pocock, 8 West Hill, Highgate, N. There shall not be less than three nor more than seven directors. The first are E. H. Woods, G. H. Leane, E. Stevenson, and N. L. Pocock. Qualification, 250*l.* Remuneration not specified.

G. MOORE & SONS (LIMITED).—With a capital of 25,000*l.*, in 50*l.* shares. Objects: To acquire the business of bottle manufacturers and merchants, now carried on by the firm of G. Moore & Sons, at Blyth, Northumberland, and to continue the undertaking in its various branches. The first subscribers (who take one share each) are:—R. Pybus, 42 Mosley Street, Newcastle-on-Tyne, solicitor; J. H. Armstrong, 8 St. Nicholas Chambers, Newcastle-on-Tyne, accountant; J. Dent, Custom House Chambers, Newcastle-on-Tyne, shipowner; D. Moore, Blyth, Northumberland, bottle manufacturer; T. Harrison, St. Nicholas Chambers, Newcastle-on-Tyne, accountant; T. W. Lovibond, The Tyne Brewery, Newcastle-on-Tyne, brewer. The first members of the board are T. W. Lovibond, W. Braby, J. Dent, D. Moore, and Wm. Moore. Qualification, 300*l.* The annual remuneration of the directors has not yet been fixed. Registered office, Blyth, Northumberland.

Gazette.

PARTNERSHIPS DISSOLVED.

Hodgetts, A., and Cooper, J., Halesowen, Worcestershire, under the style of Hodgetts & Cooper, brewers and mineral-water manufacturers.

Masterton, D. S., and Mather, C. R., Bradford, under the style of D. S. Masterton & Co., soap manufacturers.

Snelus, G. J., Ennerdale Hall, Eskett, and **Sutherland, D. A.,** Whitehaven, under the style of Snelus & Sutherland, analytical, consulting, and metallurgical chemists and assayers, Whitehaven, and Victoria Mansions, Victoria Street, Westminster, S.W.

Thorpe, G., and Simeon, E. A., Walthamstow, under the style of Thorpe & Simeon, physicians, surgeons, and general medical practitioners.

Vickers, R. F., and Wharmby, J., Pendleton, under the style of the Pendleton Wadding Company, wadding manufacturers.

THE BANKRUPTCY ACTS, 1883 AND 1890.

RECEIVING ORDERS.

Bishop, George Henry, Bristol, veterinary surgeon.

Lyons, Alfred de Courcy, Aldwick Court, Blagdon, Somerset, Bachelor of Medicine.

ORDER MADE ON APPLICATION FOR DISCHARGE.

Young, Adam, Sevenoaks, surgeon and medical practitioner—discharge suspended for three months ending November 3, 1893.

THE DECLINE OF THE MEDICINE-STAMP REVENUE.

WHAT THE WHOLESALE DEALERS SAY.

A "CHEMIST AND DRUGGIST" inquirer has been trying to find out where that 20,000*l.* of deficient medicine-stamp revenue has gone. He thought the wholesale dealers ought to be able to throw some light on the subject, so he hunted up those whom he could get at. It will be seen that his faith in their ingenuity was not much rewarded. Only one of them had a theory, and what was more curious was that no one of them seemed the least bit troubled about the matter. The figures were of interest to them, just as the statistics of the Chicago Exhibition might be; but nobody interviewed appeared to be directly concerned with them, and everybody looked at them with the utmost cheerfulness.

The following are notes of the conversations:—

Mr. George Barclay discussed the drop with our representative at 95 Farringdon Street. It was an extraordinary result, he said, and their business showed no means of accounting for it. He thought it likely that the prosecutions might occasion some falling-off in the sales, but as their trade was almost entirely with chemists, they would not be likely to feel the effects. He was pretty sure that their sales of chlorodyne, for instance, had been greater than in previous years, but for the reason already given that was to be expected. Medicines were now consigned to Ireland and abroad without the stamp more than they were formerly. In Ireland, he said, some of the chemists will not have the stamp. He was also disposed to think that chemists recommending their own articles tended to be bad for the revenue. But he did not suppose that these influences were anything like sufficient to account for the sudden loss of a twelfth of the whole revenue.

Mr. William Edwards was at his desk in Queen Victoria Street when our representative called. He willingly left his books to have a little chat, but he had no theory whatever respecting the diminution in question. It had not affected them, and the trade in unstamped proprietary articles had so extended that Mr. Edwards did not seem to attach so much importance to the fluctuation noticed in the stamped section of his business. He added, however, that his son, who was at present away on vacation, might probably have given more consideration to the subject.

At Messrs. Hovenden & Sons' warehouse in Berners Street our representative found Mr. Hovenden at once ready with an explanation of the fall in the stamp-tax returns. "I have no doubt," said that gentleman, "that the recent prosecutions of unqualified persons are the cause of the falling-off, and I am also certain that if these prosecutions continue the returns will diminish to a much larger extent than they have already done." Mr. Hovenden had not noticed the decline, but he was not at all surprised to hear of it. "It is our experience," he went on, "that the sale of patent medicines, and especially of those alleged to contain poisons—chlorodyne in the front rank—has fallen off very considerably lately. The demand for some of them has almost ceased. It may be that this decline is partly owing to bad trade and the scarcity of money, though I don't think those causes count for much. No; we are doing quite as much business now as we did some years ago, although the invoices are generally smaller, and it requires a great deal more trouble to turn over the same amount of money now than formerly. But the prosecutions are at the bottom of it all." And then Mr. Hovenden launched into a denunciation of grandmotherly legislation, which wanted to prevent people from poisoning themselves if they wished to. "Serves the Government right," was his conclusion. "They are hampering and restricting trade with all their confounded interference, and if, consequently, their revenue dries up, they, like 'dear 'Liza,' have only themselves to blame."

In King Edward Street Mr. Arthur Newbery and Mr. Pickering, the manager, were consulted. They had been struck with the statistics, but had not arrived at an explanation of them. "First of all, however," said Mr. Pickering, "it would be interesting to know whether there is any explanation to be got from Somerset House. Sometimes they change their methods of keeping accounts, and was there not," he asked, rather in grief than anger, "some mistake of a million or so about the Irish revenue?" The practice of supplying unstamped bottles of proprietary medicines for dispensing, and of exporting goods unstamped, Mr. Pickering said was growing; but it had been developing steadily, and there was no such sudden expansion of the practice last year as to reverse the progress of the past thirty years. Their sales of the poisonous medicines did not seem to have declined at all; but he was a little inclined to agree that the advertising of patent medicines generally had been somewhat restricted latterly.

Mr. Roberts (May, Roberts & Co.) was caught in the 7-something train, by which he always goes to business. The decline was inexplicable to him. He had particularly noticed that his firm had bought larger quantities of the so-called "poisonous" medicines since the prosecutions than before them. This was in addition to a large quantity which they had taken back from customers. He thought the practice of omitting the stamps on medicines exported was growing, and that might account to some small extent for the decline.

Messrs. John Sanger & Co., of Winsley Street, had very little of a tale to tell, but, such as it was, Mr. Smith imparted it courteously. The firm were not aware that there had been any decline in the revenue from the patent-medicine stamps, nor could they account for it. They sold quite as much chlorodyne now as they had ever done before, though, to be sure, as their trade is mostly with chemists, that would be no proof against a falling-off in the sales by grocers and others. But they could not say anything with regard to patent medicines generally, which were cut so much nowadays that they did not care to push that branch of their trade, and applied themselves more to the sundries business.

Messrs. William Sutton & Co., of Chiswell Street, had not noticed the figures, and were somewhat disposed to discredit them. Judging from their own experience, they would have thought the revenue must be advancing; their total sales were increasing, and they thought that both stamped and unstamped medicines shared in the augmentation. They could not offer any suggestion towards solving the problem. Their trade was with chemists only, so that they could not judge whether the prosecutions had had any influence.

TRADE-MARKS APPLIED FOR.

ANY person who has good grounds of objection to the registration of any of the following marks should *at once* communicate with Sir Reader Lack, Comptroller-General, at the Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C.

(*From the "Trade Marks Journal," September* 20, 1893.)

"LUBRA BRAND," and sketch of Maori woman and child; for eucalyptus oil and extract. By Woods & Co., Grenfell Street, Adelaide, S. Australia. 169,952.

"ARK," and sketch of ark floating on water; for medicated soap. By Lever Brothers (Limited), Port Sunlight, near Birkenhead. 173,917.

"VIRIDINE"; for vinegar and vinegar substitutes. By J. Parry & Sons, 133 Richmond Row, Liverpool. 174,528.

"BETHESDA MINERAL-SPRING COMPANY," as signature; for mineral and aërated waters, &c. By Bethesda Mineral-spring Company, Waukesha, Wis., U.S.A. 171,394.

"EVERLASTING," and device of pyramid; for perfumed soap. By J. Crossfield & Sons, Bank Quay, Warrington. The essential particular is the device. 174,202.

"GRATIOLA"; for perfumery and toilet articles. By C. E. Mason & Co., 2 Beech Street, London. 174,239.

"BARKER'S HIRSUTUS"; for tonics and preparation for the hair. By Mary B. Fareira, 36 West Twenty-ninth Street, New York. 174,628.

TASMANIAN EUCALYPTUS-OIL LICENCES.—There are four persons in Tasmania licensed to keep stills for the distillation of eucalyptus oil: Mr. H. T. Gould (manager Tasmanian Eucalyptus-oil Company), Lady Bay; Mr. A. P. Miller, Sorell Creek, New Norfolk; Messrs. Clarke & Co., Wedge Bay and Mr. John Hay, Hastings.

Personalities.

MR. GEO. BRISLEY, chemist, Station Road, Bexhill (Sussex), has been elected a member of the Bexhill Local Board. He was fourth on the list, with 408 votes.

MR. JOHN W. WILSON, J.P., of the firm of Albright and Wilson, phosphorus-manufacturers, has been adopted as the Unionist candidate for the Northern Division of Worcestershire at the next election, in opposition to Sir Benjamin Hingley, the present Gladstonian member.

PROFESSOR WIESNER, Director of the Institute of Physiological Botany of the University of Vienna, and Professor Gregor Kraus, director of the Botanical Gardens of the University of Halle, each accompanied by an assistant, are about to leave for Java for the purpose of carrying on botanical researches at the Buitenzorg Botanical Gardens.

A SILVER tea and coffee service, on an oak tray with silver mountings, was recently presented at a public meeting to Mr. T. B. Baker, chemist and druggist, of High Street, Cosham, on his retirement from the position of postmaster, which he has filled for thirty-nine years. The Cosham schoolroom was filled with friends, and General Sir Frederick Fitzwygram, Bart., M.P., in making the presentation, said Mr. Baker might well feel proud that after forty years' work in one district he lived in the esteem and respect of all his neighbours—the fact that there were upwards of ninety subscribers in such a small place proved how general was the desire to acknowledge his services.

THUS comments the scribe of the *American Druggist* on the English pharmacists who have been visiting the International Congress at Chicago:—Michael Carteighe, president of the British Pharmaceutical Conference (*sic*), stands firmly on his feet, his arms folded, his head thrown back, his fine shoulders squared, and his clear voice rings through the hall when he speaks His grey pointed beard, tightly-buttoned close-fitting grey coat, and assured bearing would well befit the successful banker, while his easy courtesy is rather more French than English in effect. William Martindale, he of the "Extra Pharmacopœia," has a fine head well set on a fine body. His full whiskers are black and white, so unevenly distributed as scarcely to be called grey. He stands high, physically as well as intellectually, and makes friends rapidly among his American colleagues. He is built on square lines from his head down to—well, I did not observe his feet. William (*sic*) Martin, of Newcastle, ex-president (*sic*) of the British Pharmaceutical Conference, is rather below the medium height, is well proportioned and wears a Vandyke beard of a sandy-brown colour. Henry S. Wellcome, whose name and fame have travelled from the home of his firm at Snow Hill Buildings, London, literally to the ends of the earth, is an enthusiastic and clear-headed worker, as is shown by the achievements of the firm. Mr. Wellcome is of medium size, fair-haired, athletic of appearance, and un-English in looks. As a member of the Lotos, Savage, and Whitefriars Clubs he is in close level with the brainy men of both America and England. He has long known Stanley, Nansen, and other explorers, and has just perfected a lime-juice tabloid, of which Nansen will carry a supply on his five years' sojourn in an ice-pack. Mr. Wellcome also gave his personal attention to the fitting-out of Lieut. Peary's expedition.

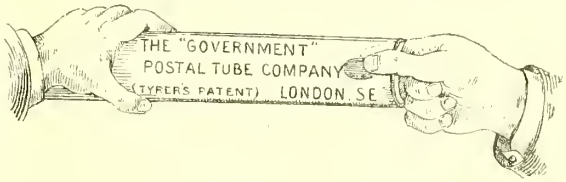
Notes of Novelties.

HERTZ & COLLINGWOOD'S COCA CHAMPAGNE.

MESSRS. HERTZ & COLLINGWOOD introduced their coca tonic champagne to the medical profession at the Newcastle Meeting of the British Medical Association, and then and subsequently it seems to have met with a considerable amount of approval. It is now coming into popularity among medical men. The champagne is a fine one, prepared by Messrs. Laurent-Perrier et Cie. of Bouzy, near Rheims, who just before the final process of bottling add to the wine a proportion of a fluid extract of coca, carefully prepared for the purpose in this country. The champagne would be classed as a particularly dry champagne, but instead of the candy which is usually added to ensure the necessary sweetness, only so much is employed as will yield the requisite proportion of carbonic-acid gas, and the rest is made up by the substitution of saccharin, so that the wine may be wholesome for all classes of patients. Although the presence of a preparation of coca is distinctly traceable by chemical tests, the flavour of the champagne is certainly not impaired thereby. The firm have just issued a well-written pamphlet explaining the medicinal virtues of the champagne as well as the process of manufacture, and we are informed that they are prepared to pay for the licence to sell it for those chemists who are willing to stock it with an initial order to the value of 12*l.* 10*s.*

TYRER'S PATENT POSTAL-TUBE.

MR. PETER TYRER, of 70 Long Lane, Bermondsey, S.E., has invented and patented a most practical tube for the forwarding by post of sketches, photographs, and general printed and written matter. The innovation is simple, but none the less valuable, for the small aperture, which is the essential feature of Mr. Tyrer's patent tube, makes all the difference



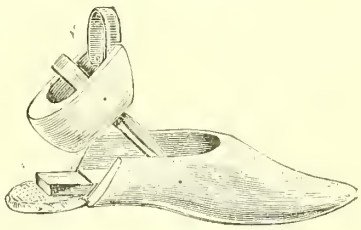
between the smooth abstraction of the contents and difficulty, spoliation of the matter within, and loss of the operator's temper. We recommend the tube to chemists who have occasion to make use of such articles. The Government Postal-tube Company, at the address above named, supply it.

ENAMELLED GAS-BURNER.

MESSRS. FLETCHER, RUSSELL & CO., of Warrington, have improved their well-known counter gas-stove by sending it out enamelled by a new process, in such a way that while varied tints can be given to the iron, the burner is said to be perfectly protected from any possibility of rust.

A NEW BOOT-WARMER.

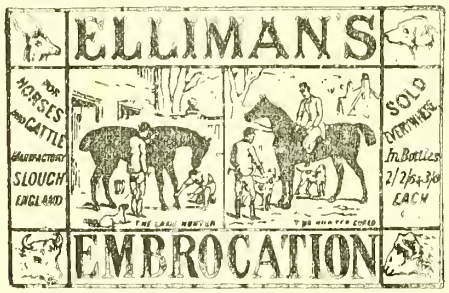
A RATHER ingenious instrument for drying and warming boots has been submitted to us this week. It is the invention of a civil engineer, and is manufactured by Messrs. E. & W. Belden, of Gt. Dover Street, S.E., who propose to bring it upon the market shortly. The instrument consists of a boot-tree with movable heel,



which, when lifted up by a leather strap, gives access to a metal case into which is fitted a small iron bar. The bar is heated, replaced into the case, and the heel of the boot-tree brought back into its original position, when the whole apparatus is placed within the boot, which is thereby dried or warmed in a much more effective manner than can be done by placing it before the fire in the ordinary way. The new boot-warmer is on view at "Lepidigure's," 79 Strand, W.C.

KINGZETT'S PATENT
SULPHUR
FUMIGATING CANDLES
ARE NOW READY FOR SALE.
TRADE TERMS:—6d. Candles, 4/6 per doz., less 15 per cent.
1s. „ 8/- „ „
"SANITAS" POCKET INHALERS, 1/- EACH, @ 10/- per dozen, less 10 per cent. to the trade.
THE SANITAS CO., LIM., BETHNAL GREEN, E.

SHOW CARDS, 24 × 17 or 17 × 12.
Sent to any address in the United Kingdom.



See first page, inside of front cover, of the first issue of this month, for latest particulars.

A POSITIVE PAIN-KILLER.
GORDON STABLES, M.D., R.N.
DAY'S OIL OF THE NIGHT
Is an Embrocative Balm for the People, and a source of profit to the Retailer
1s. 1½d. and 2s. 9d. NO CUTTING. [2]
DAY & SONS, CREWE.

GLENDENNING'S BEEF AND MALT WINE.
Composed of Kepler's Malt Extract, Liebig's Beef Extract, and old Alto-Douro Port Wine. Being a standard preparation, it commands a ready and a steady sale. Order through your Wholesale House, or direct from
Established 1867.] W. GLENDENNING & SONS, [Established 1867.
WINE MERCHANT,
9 GRAINGER STREET, NEWCASTLE-ON-TYNE.
Works—Salzbach Buildings, St. Mary's Place.

THE OLDEST ENGLISH & AMERICAN CHEMIST
in PARIS (founded 1808)
BOISSY late GALLOIS
2, Place Vendôme, Corner of rue St-Honoré
would undertake one or two additional agencies for patent Medicines, Sundries, etc.
Special connexion amongst Doctors in Paris & Provinces.

MOSS'S MISCIBLE CASCARA
Mixes with Water. Certain and Pleasant.
"A great Improvement."
(REGISTERED)
"THE BEST OBTAINABLE." Dr. Gilcreist, Omagh.
Through any Wholesale House, or from the ONLY MAKERS—
JOHN MOSS & COMPANY,
Galen Works, New Cross Road, LONDON, S.E.

ELLIS'S TABLE WATERS
Sole Address: R. ELLIS & SON, RUTHIN, NORTH WALES.
London Agents: W. BEST & SONS, Henrietta Street, Cavendish Square.

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(HOME, FOREIGN, AND COLONIAL.)
MODERATE INCLUSIVE FEES.
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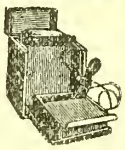
MEDICAL ELECTRICITY.



EVERY DESCRIPTION OF
Galvanic, Faradaic, and Electro-Magnetic Machines and Electrodes, Galvano-Cauter and Lighting Instruments.
Lists Free. Descriptive Catalogue, 100 Illustrations, 32 pages, 4 stamps.
GENT & CO., LEICESTER.

Medical Press and Circular.

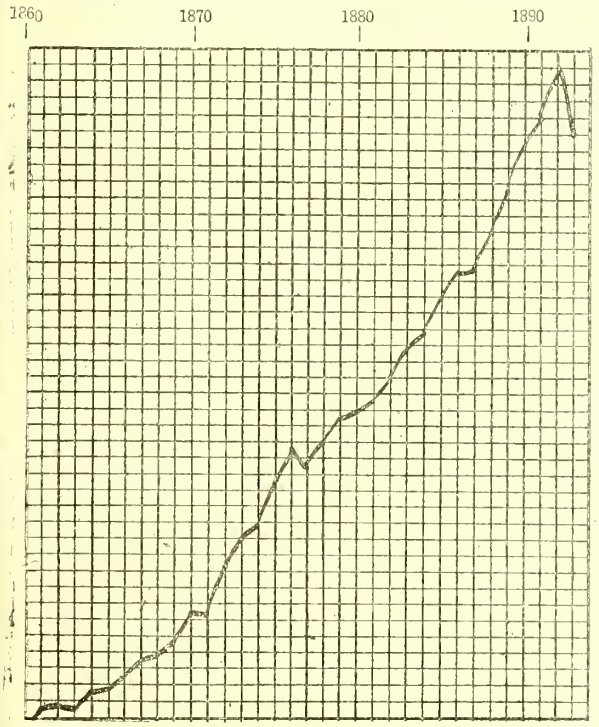
"BY the use of FLETCHER'S CONCENTRATED LIQUORS all the trouble and annoyance of variety of colour and strength, which is so frequent in our fresh infusions, is avoided, and this, so far as we could trace, WITHOUT ANY SACRIFICE IN THE THERAPEUTIC POWER OF THE DRUG, OR IN THE PHYSICAL CHARACTERS OF THE PREPARATION."

Editorial Comments.

THE DECLINE IN THE PATENT-MEDICINE BUSINESS.

WE noted last week the remarkable drop in the national income from medicine-stamps recorded in the report of the Commissioners of Inland Revenue for the year ending March 31, 1893. The decrease of 19,737*l.* therein indicated

is very significant. The tables in Alpe's "Handy-book of Medicine-stamp Duty" show the annual receipts from this source of revenue from 1860 to 1892, and the diagram appended shows the progress of these receipts in a graphic manner. In 1860, medicine-stamps (or as the Board still call them, "patent"-medicine stamps) yielded 43,692*l.* The 100,000*l.* was passed for the first time in 1875, and the 200,000*l.* in 1889. The progress made in the five years from March 31, 1887, to March 31, 1892, was by far the most rapid of the whole period. From 1860 to the former date an average annual advance of not quite 5,000*l.* had been attained; but from 1887 to 1892 the medicine-stamp revenue bounded upwards with an average increase of over 12,000*l.* per annum. And now occurs this sudden and astonishing reversal. In the last completed year, the revenue, instead of advancing by another 12,000*l.*, as probably the Commissioners had estimated, marked a loss of some 20,000*l.*! One-twelfth of the whole business destroyed in a single year!



This diagram represents the progress of the revenue from medicine-stamps from 1860 to 1893 inclusive. Each square indicates 5,000*l.* The revenue for the year ending March 31, 1860, was 43,692*l.* That was the first and the lowest of the series. The highest point touched was in the year ending March 31, 1892, when the revenue amounted to 240,062*l.* Last year (ending March 31, 1893) it fell to 220,325*l.*

Twenty thousand pounds more or less is not a very serious item in the accounts of a department which returns to the Treasury a total of over fifty millions, and the Commissioners do not seem to regard the circumstance as worthy of a single line of comment, But it is a very significant fact in the history of the trade which it concerns. Twenty thousand pounds' worth of medicine-stamps means over three millions of bottles, boxes, or packets, reckoning all the stamps as three-halfpenny ones. Three million packets of medicines, at a selling-value of more than 150,000*l.*, is the deficit in the patent-medicine trade of Great Britain for last year. It is a noteworthy event, and demands careful consideration.

The circumstance which most promptly suggests itself as accounting in some measure for the decline is the legal attack made by the Treasury and the Pharmaceutical Society on proprietary medicines containing poisons, and it can hardly be doubted that this must have been the principal factor. The action taken by the Treasury against Mr. Davenport for selling chlorodyne without a poison-label was heard at Bow Street on April 30, 1892. From then onwards proceedings against unqualified vendors were frequent, with the double result, no doubt, that consumers were in some instances alarmed, and that many retailers discontinued the sale of a number of preparations. The latter result ought not, of course, to have made any difference in the total consumption; the business ought simply to have been transferred from grocers to chemists. But that does not seem to have resulted. We do not believe that the whole deficiency is due to alarm in the public mind in consequence of the law-proceedings and the poison-label which has supervened; but that these have had a surprising effect in that direction seems pretty well established. Probably it was after becoming acquainted with the revenue-returns that the Treasury authorities took the resolution not to prosecute except in cases where an appreciable proportion of poison was present, which was recently mentioned in Parliament.

It is very likely that other circumstances have coincided to check the patent-medicine business. There is reason to believe, for instance, that many of the chief makers have somewhat restricted their advertising during the past year, or two, and if this be the case the fall is easily explained. The year was not distinguished by novelties in the patent-medicine line, and this may be taken into account. We do not presume that the general health of the community much affects the demand for patent medicines, nor is there any reason to believe that laxity of the Somerset House officials has reduced the revenue. The curious fact that with a declining business more licences have been paid for, is accounted for by the recent law which compels vendors to take out a separate licence for every set of premises. That chemists have apparently not benefited by the judicial decisions of last year may be some sort of satisfaction to their unqualified rivals, but it will not give much consolation to those manufacturers, whoever they may be, whose businesses have been clipped. The moral of the story is, however, that these gentlemen must in future cultivate, perhaps, a little more than they have done in the past, the favour of pharmacists, who are now, and will continue to be, their only possible agents.

MORE ABOUT OTTO OF ROSE.

SINCE we commented upon the otto-of-rose crop in a recent issue, the position of the market in London has remained unaltered—so far, at any rate, as the price of the article is concerned. In the meantime, however, an interesting report has reached us through a correspondent at Sofia, in Bulgaria, who, for obvious reasons, wishes to remain anonymous, but who is in as good a position as anyone for knowing what is going on in the rose-districts of the principality. According to this informant, the rose-crop, far from being the partial failure which other accounts have stated it to be, has actually been about 65,000 oz.T. (a Turkish ounce is about 1¼ oz. avoirdupois), or, say, 25,000 oz.T. in excess of last year. It is true, continues our informant, that there was very little old stock in existence at the beginning of the present season, but there is no shadow of ground for assuming that the output has been such that there is any justification whatever for the great advance in price which was sprung suddenly upon the trade a few weeks ago by a Constantinople firm, followed by other dealers. Our correspondent asserts (though we must leave the responsibility for the statement entirely to him) that the unexpected rise is simply the result of a kind of combination in which

the Constantinople firm in question, supported by a firm of very high repute in Germany, have taken the lead. The otto-of-rose trade has shown a marked tendency during the last few years, as we have frequently pointed out, to slip from the control of the Constantinople houses into that of the native distillers; but this year the wholesale dealers in the Turkish capital appear to have stolen a march upon their Bulgarian competitors by buying up, as soon as the distilling was at an end, all the available otto of rose in the growing-districts at prices which were raised after every transaction. The leading firm in this operation is reported to have secured considerably over 20,000 oz. of otto; others, also behind the scenes, have obtained control of smaller amounts; but the Bulgarians were completely out-generalled, and, after allowing the favourable moment to pass by, could only secure a few odd lots here and there, for which, in some instances, they have been compelled to pay prices exceeding those now quoted in London. Some of the leading Bulgarian exporters have, of course, the produce of their own gardens to offer to their customers; but that is not sufficient for their ordinary trade. Naturally, the Turkish party wish to spread the belief that the crop has been a partial failure, and that the present high quotations are therefore justified; on the other hand, the Bulgarians (whose view is also taken by our Sofia correspondent) assert that there has been a plentiful production, and that consumers who allow themselves to be drawn into purchasing at the current prices will find in due time that they have been used simply as convenient discharging-channels by the leading spirits of the combination. A singular story is said to be current in Bulgaria with regard to the adulteration of otto of rose this season. Some years ago the importation of palmarosa, or Turkish geranium-oil, the favoured adulterant of the otto, was prohibited under stringent penalties. A few weeks ago a large consignment of so-called "petroleum," addressed to a well-known Bulgarian firm of distillers, excited the suspicion of a Customs official, who, unfortunately for himself, forgot the good old maxim that too much zeal is always misplaced. The consignment had already passed the frontier unchallenged—nay, unopened—but the official insisted upon overhauling it, when it turned out that the petroleum-barrels contained nothing but palmarosa oil. At this moment the unfortunate official was overtaken by his superior officer, who sharply reproved him for meddling with things he did not understand, had the barrels closed again, and sent off straightway in landaus to the distillery. The affair, unfortunately, got abroad, and it is now added that the superior officer had received an intimation from a powerful Government official, who also happens to be a partner in the otto-of-rose "factory" to which the "petroleum" was consigned, that this shipment was expected to be passed through the frontier-post without any inconvenient inspection. The head man had dutifully done the part expected of him, but the underling was not let into the secret. He is not likely to be promoted now for some time.

LUCIFER MATCHES.

WHO was the inventor of the lucifer match? At least as many countries are now disputing the honour of having produced the parent of the first friction-match as there were cities claiming to be the birth-place of the Father of Poetry. Under our foreign news of last week we mentioned that the Germans want the credit of the invention for one Kammerer, who, they say, beguiled his enforced detention in a fortress, just sixty years ago, with the experiments that resulted in the production of the useful article. But it is only a few years back since the Hungarians tried to make out that the honour of the invention belonged to a Mr. Ironyi, a countryman of theirs, and a pharmacist to boot. Neither they nor the Germans, however, have succeeded in bringing forward sufficient evidence to establish their claims beyond doubt or cavil; and little more can be said for the French, who, needless to say, have a claimant of their own. This gentleman, M. Sauria, a physician by profession, is said to have invented friction-matches in 1831, when a lad at school. He, like the other self-styled inventors, made no money by his discovery, although he was lucky enough, in his old age, to induce people of certain political influence to support his claim, and to obtain from the late President Grévy that last resort of the distressed respectable Frenchman, a *débit de tabac*. The public has since lost sight of the "inventor" in the obscurity of his tobacco-shop, but it is quite possible that Dr. Sauria still continues to sell the State-monopolised matches of the Republic, wondering how it is that their quality has not been improved since he invented them, sixty odd years ago.

But Dr. Sauria was a little behind the times, for there is no doubt that friction-matches were known in this country just after the close of the first quarter of the century. In fact, time will probably show that the real inventor of the lucifer match was a Britisher, though it is very likely that shortly after the discovery was made in this country the secret was also found independently on the Continent.

The first light-bearing matches, as sold in England in 1826, were made of strips of cardboard-paper or of flat splints of wood tipped first with sulphur and next with a mixture of chlorate of potash and antimony. They were lighted by being drawn smartly through a piece of folded glasspaper. Needless to say, they were expensive, wasteful, offensive to the smell, and unsafe. A more effective form of match was introduced soon after by the name of "Congreve light" or "lucifer." It was in England also that machines for cutting the splints forming the body of the match were first brought out, though quite thirty years seem to have elapsed between the invention of matches and the advance of the industry to this stage of machine-use. Naturally the retail sale of matches was at first mainly in the hands of pharmacists, who probably were manufacturers themselves in most instances. One of the day-books of the late Mr. John Walker, who was in business as a chemist and druggist at Stockton-on-Tees as early as the first quarter of the century, for instance, bears numerous entries relating to the sale of "friction-lights." The first runs as follows:—

Die Saturni, April 7, 1827.

No. 30.—Mr. Hixon.
Sulphurata, Hyper Oxygenate, Fric. 100—1*s.* 2*d.*
Tin case — . 2

and from that day onwards until September 23, 1829, no fewer than 167 boxes of the same kind were sold by Mr. Walker, who made a solemn entry in Latin each time to record the fact.

In some quarters, in fact, this Mr. Walker is said to have been the original inventor of the lucifer match, and it is even stated that he hit upon the idea of the preparation while engaged in the manufacture of some chemical compound in his laboratory, after observing that a stick which he had used for stirring took fire when accidentally rubbed upon the hearthstone. Another claimant for the honour of having invented the friction-match is Sir Isaac Holden, who is now, at the age of 86, an active politician and business man. Sir Isaac, in evidence he gave some years ago before a Parliamentary Committee on the Patents Act, stated that in October, 1829, when engaged as a teacher of chemistry at Reading, he was in the habit of rising at 4 A.M.

and of lighting up, as everyone then did, by means of a flint and steel. He often thought of the desirability of improving this cumbersome process, and the idea occurred to him to place sulphur between a piece of wood and some chlorate of potash, the explosive nature of which was well known at the time. He tried this plan in the class-room, and one of his pupils, the son of a London chemist, immediately wrote to his father about the experiment. Shortly afterwards Sir Isaac had the satisfaction of hearing that lucifer matches prepared upon his system were being offered for sale in London. He was then urged to apply for a patent, but he thought that the matter was too small to trouble about.

This is another instance of how difficult it is for even people of unusual intelligence to foresee, however dimly, the possibilities of the future when the calculation involves hitherto unknown factors. To estimate even approximately the quantity of matches now produced in the world annually is quite impossible. The statistician would have to take into account not only the European and American production, but also that of Japan and China, where the manufacture of matches is rapidly growing into a great industry. Indeed, it is not impossible that the veteran Sir Isaac Holden himself may witness the time when Japanese safety-matches shall have become as formidable competitors to the continental matches in the British markets as the Swedish article has proved itself to the British for many years.

CHOLERA AND CREMATION.

The Cremation Society have republished in pamphlet form, with additions by the author, an article on "Cremation and Cholera," by Sir Spencer Wells, which appeared in the *Forum* for February last. The pamphlet is timely. In presenting his facts the author traverses to some extent the history of cholera since 1831, when the plague first appeared in England, and then deals with the preventive and remedial measures necessary in combating its ravages. The great danger is the use of impure and fecalised water, especially that into which the cholera-bacillus has already found its way, the use of such water having been in the past the cause of more than one epidemic in England. The house-water cistern is also condemned, a constant supply being advocated, and, if filters are used, the necessity of thorough cleanliness is inculcated. Some severe strictures are passed upon the modern disposal of the dead bodies of victims to zymotic diseases. "In Philadelphia," says the great specialist, "about 1,000 persons die every year from typhoid fever, and it has been distinctly proved that the water supplied to the city is contaminated by leaking and drainage from seven large cemeteries, which poison the rivers and reservoirs." These and other statistics lead to a strong appeal in favour of the cremation of bodies dead from zymotic disease, or, as a provisional remedy, the removal of cemeteries to a distance from populous districts.

WHAT IS AN ATOM?

Philosophers of all ages have attempted to answer the question, and we have not yet arrived at a satisfactory conception. Some have made the atom a cube, others a sphere. One highly-distinguished personage, now living, believes the ultimate form of matter is a ring; but all are eclipsed in imaginative power by a Mr. G. T. Carruthers, of Tonbridge, who informs the readers of the *English Mechanic* that "an atom may be considered as a little vesicle enclosing vapour, and formed much like a soap-bubble, except that the vapour permeates the film. It may, indeed, be better represented by water permeated with steam at 100° C., or by the air pervaded by the ether of space. The atomic weights, 1, 14, 16, &c., are the weights of the several films which serve as the weights on a safety-valve to increase the atmospheric pressure. They show that when the vapour gained an entrance within the films its pressure of saturation was 2116 + 1, 2116 + 16, &c., when the unit volume is taken as a cubic foot." We may be dense, but must confess that we do not see the point. Nor is much light thrown on it by telling us "If we assume that water-vapour permeates all atoms, it follows that when three volumes are condensed to two, a volume of vapour will be set free. Hence the atoms contain equal quantities of electricity, because they all contain equal amounts of oxygen to combine with the zinc." And so on to the extent of a *C. & D.* column. The soap-bubble atom is such a pretty idea that one feels a pang of regret when it is discovered that the originator apparently does not know the difference between an atom and a molecule. True, a molecule exists for him, but it is peculiar, being "of the same weight as a cubic foot of gas at its maximum density for pressure and temperature."

WHISTLING FIREWORKS.

One of the features at the Crystal Palace fireworks-display last week was whistling fireworks, which in burning give a wild screaming noise. There it some mystery about how this noise is produced. Messrs. Brock themselves are unable to say, and do not know anybody who can tell them. The firework consists of a stout paper tube $2\frac{1}{2}$ inches in length, and with a bore of about $\frac{3}{8}$ inch. About 2 inches of this little tube are stuffed with picrate of potash, leaving $\frac{1}{2}$ inch or so empty. When lighted by means of a fuse it does not explode, but burns away with great violence, and with the uncanny shriek which gives the thing its interest. Pyrotechnists have tried many other compositions and many other kinds and forms of tubes, but picrate of potash is the only thing that will give anything but the faintest trace of a whistle.

MARRIAGES.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

JACKSON—RIGNALL.—On September 20, at the Church of the Holy Cross, Crediton, by the Rev. Prebendary Smith, Edward Ernest Jackson, lozenge manufacturer, to Margaret Gertrude, younger daughter of Mr. J. R. Rignall, of Taw Vale Terrace, Crediton.

ROSE—HEMMINGS.—On September 19, at Atherton Parish Church, by the Rev. J. O. Young, M.A., Mr. George Rose, chemist, late of Oak-tree Villa, Rolleston, Staff., to Miss Elizabeth Hemmings, eldest daughter of the late Mr. George Hemmings, of Chapel Chorlton.

DEATHS.

ALLEN.—On September 9, George Allen, pharmaceutical chemist, Anthill. Aged 80.

SAVAGE.—On September 9, James Savage, chemist and druggist, late of Bradford. Aged 44.

SCOTT.—On September 16, Mr. Benjamin Scott, chemist and druggist, at his residence, Antingham Road, North Walsham. Aged 66 Mr. Scott was formerly in business in the Market Place, at Walsham, but retired a few years ago owing to failing health. Since that time he has acted as clerk to the local School Board. He was also a member of the Local Board, and one of the directors of the Gas Company.

WARD.—On September 14, at West Parade, Newcastle-on-Tyne, Mr. Benjamin Ward, aged 84. Mr. Ward had for sixty years carried on business in Newgate Street as a chemist and druggist. He was well known and highly respected.

WHIFFEN.—On September 1, on board the s.s. *Oroya*, whilst in the Red Sea, bound for England, Alfred H. Whiffen, of Sydney, youngest son of Thomas Whiffen, manufacturing chemist, of Battersea, and Cerris House, Putney. Aged 37.

A MODERN MERCHANT-ADVENTURER.

MR. ARTHUR ROBOTTOM AND HIS BOOK.

NOT the least unpleasant among the many doleful forecasts indulged in by Professor Pearson in his now famous book on the future conditions of human existence is his prediction of the impending decay of romance. And what renders that prognostication especially bitter is the apparent plausibility of the Professor's arguments. Other views of his may be disputed, statistics *con* be marshalled against arrays of figures *pro*, but from his conclusions in the matter of the coming decline of the spirit of adventure there seems to be no escape. What can be more certain than that, within measurable space, every inch of the world's surface will be known; that adventurous explorations must of necessity cease; that commodities of exotic origin, in quest of which people formerly ungrudgingly risked their lives, will be had for the gathering within an arm's length of their market of consumption; and that all races and countries will become outwardly so much alike that it will be worth nobody's while to travel, excepting, perhaps, for a change of climate? With these sorrowful musings a CHEMIST AND DRUGGIST representative, who had but lately risen from a perusal of the old-world chronicles of the exploits of the illustrious navigator Don Alfonso d'Albuquerque, surveyed the prosaic black-garbed business crowd in the drab

MR. A. ROBOTTOM.

atmosphere of Mincing Lane, when he was suddenly hailed by a familiar voice, and a tall, grizzled, bent figure, only distinguishable from his fellows in outward appearance by a huge South American gold coin on his watch-chain, and a habit of toying with a venerable trinket, alleged to be an "Inca's eye" from some forgotten tomb in Peru, came half running, half walking towards him.

"How are you, Mr. Robottom?" said our representative, extending his hand. "But," he added, noticing a look of unusual agitation upon his acquaintance's face, "what is the matter with you?"

"I have finished my book!" said the other. Then, beaming all over with the serenity of one who has accomplished a life-task, he added, "come with me into the Commercial Sale Rooms, and I'll tell you all about it."

The next half-hour was spent in the perusal of the. truth to tell, rather unattractively-printed proof-sheets of the book in which Mr. Arthur Robottom, in somewhat disjointed chapters and with no pretence to literary elegance, tells the story of a life which has been as full of adventure and of varied incident as that of any man you might meet in the caravanserai of Commerce. Mr. Robottom, of whom most people in the chemical-trade have heard in connection with the discovery of borax in Death Valley, Nevada, and who has devoted a great part of his life and untold energy to the popularisation of the drug, is now a hale old gentleman verging upon 70. His reminiscences begin with an account of the early days of railway-building in England, and then slip off by easy stages into stories of the invention of lucifer matches (with which he does not seem to have had anything to do), the first hansom cab (in which he was a passenger when it started upon its trial trip), and other more or less clearly-marked childhood recollections. The *Universal Gazetteer* appears to have been the youthful Robottom's chief literary nourishment, and under the influence of that exhilarating publication, and the kindly interest taken in his little person by an old gentleman who kept a chemist's shop near his father's house, the young man's fancy lightly turned to thoughts of drugs and how to collect them in the weird and inhospitable regions so graphically depicted in the treasured volume.

PIGEONS, TALLOW, AND SPITTOONS.

By-and-bye young Arthur Robottom grew into a pigeon-dealing youth with a keen eye for business, and a quite precocious appreciation of the blessed Evangel of buying in the cheapest and selling in the dearest market. Enter now a mysterious and anonymous Earl, who, with high-born lavishness, ordered 50 dozens of blue rock pigeons at 1*s.* 3*d.* apiece from the beaming boy. Young Robottom cleared 20*l.* by the transaction *plus* the dead pigeons (they had been bought for shooting, not eating), and with the capital, swollen by the lucre accumulated from pennies acquired from the local miller for looking after empty sacks, Arthur hopefully started in business as a proprietor of frames for stocking-manufacturers, which he let out on hire to the poor stocking-weavers of the neighbourhood.

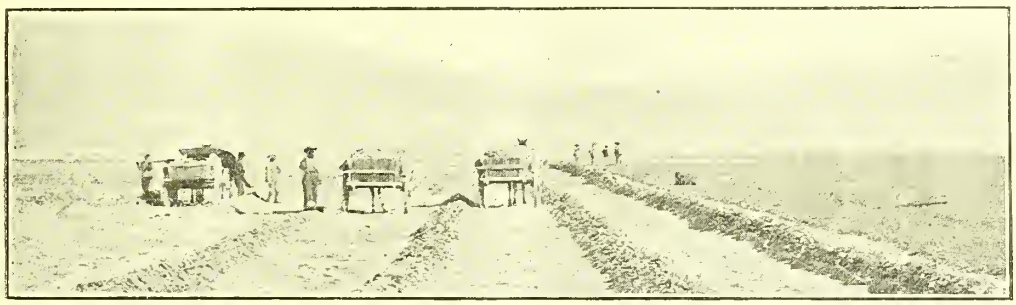
There is a delightful rambling style about the autobiography and an almost total absence of dates by which to mark the milestones of the writer's commercial career. His connection with the chemical-trade appears to have been reached by a circuitous route, through the regions of Lard and Tallow, with some experience of the business of Spittoon-manufacture for the Java market thrown in. But presently we find Mr. Robottom forsaking these extraneous charmers for his first love—the drug-business. It came about in this way. "At this time"—an expression of Biblical vagueness, much affected by Mr. Robottom, which in the present instance we gather to mean 1845 or thereabouts—borax, which the English potters used for glazing, was very expensive.

BORAX AND TINCAL.

Through some Calcutta friends of his family Mr. Robottom was induced to try to revive the old trade in Thibetan tincal as a substitute for borax. He succeeded in obtaining two consignments of the stuff, which realised handsome profits. Others soon heard of this promising business and took to it, with the result that in a short time the Indian exporters began to resort to adulteration, prices dropped considerably, and the English markets were flooded with sophisticated tincal, unsaleable at any price. Poor Robottom, in this *débâcle*, had some very anxious days. Two large tincal consignments were doubling the Cape, he had accepted bills against them at far more than their actual market-value had fallen to, and after the acceptation of the bills the overland samples which reached him showed the stuff to consist half of sand and almost half of ghee-butter. Ruin loomed darkly at the outset of a promising career when, lo! the *Times* came out one day with the news that both vessels had been lost off the Cape of Good Hope. The sand and ghee-butter were insured as tincal at the previous high-market value of that article, and so, complacently observes Mr. Robottom, "being insured for over the invoice cost, I came out with a gain instead of a loss." And better still was to follow. A distressed tincal-consignee, holding a lot of depreciated stuff, induced Mr. Robottom to try to sell it among that gentleman's potter friends. Mr. Robottom set out on the errand, sold the tincal at a handsome profit, and induced the merchant who bought it from him to put up a borax-refining plant in the Potteries, and thus to end the monopolies of Lardarel & Co., the Tuscan boracic-acid makers, and of Wood & Lloyd, who had been until then the only borax-refiners in Britain.

The Tuscan Borax-finds.

The Tuscan Lardarels owed their wealth to the business insight of a commercial traveller of that name from Leghorn, who in the thirties was fortunate enough to secure a partnership with an Italian chemist, the discoverer of boracic acid in certain hot springs near Monte Rotondo, and, in conjunction with a third, a Frenchman named Laselle, had begun to work some of the springs and recover the acid. The Italian, unfortunately, had only made a verbal agreement with his co-partners, and when the latter began to understand the valuable nature of the business, they contrived to buy the land upon which the springs were situated behind the Italian's back, and turned him out of the business. After a casual mention that the original discoverer, thus cheated, committed suicide in despair, and that Laselle was also afterwards turned out by Lardarel, Mr. Robottom goes on to describe the Tuscan boracic-acid works in detail, and then proceeds to give brightly-written accounts of voyages which he undertook to Brazil and Mexico, and which resulted in the introduction of piassava and Mexican fibre, not to mention carnauba wax and other commodities.

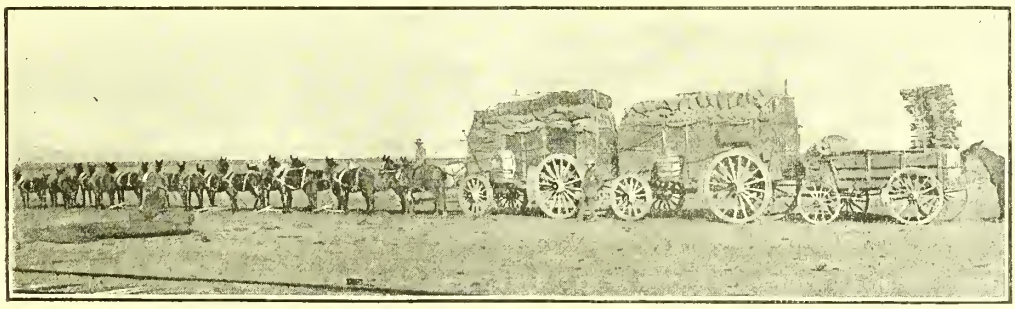


Collecting Borax in Death Valley.

How He Struck Oil.

By this time Mr. Robottom had amassed a considerable amount of money; he now tells us, with undiminished zest, how he lost it in the paraffin-oil business. Paraffin oil was first discovered in a Derbyshire coal-mine in 1847 by the present Lord Playfair, who mentioned his discovery to Mr. Jas. Young, then an assistant to Mr. Penny, an analytical chemist in Glasgow. Mr. Young took to the business and worked the Derbyshire petroleum well for some time. After its exhaustion he started the manufacture of oil and solid paraffin from shale, and finally became the founder of Young's great oil and candle works at Burntisland. Mr. Robottom joined the new and promising industry at an early date—about 1848 or 1850. In conjunction with Mr. W. Mathieu-Williams, the chemist of the Midland Institute in Birmingham, he purchased a "claim" at Mold, in Cheshire, where the soil seemed fairly seething with petroleum, put up retorts, and started business. So likewise did a number of others, for the new oil-region had already leapt into fame. Everything boomed. "We took lodgings," says our friend, "at a farmhouse near the ground at a rent of 10*s.* a week, but when our undertaking was found to be a success this was quickly advanced to 30*s.* At the same time the price of labour and horse-hire began to increase in the same ratio." Mr. Robottom had already blossomed into the pride of place of a man who is pestered with "poor relations." Such a one found him out at Mold and was taken on as a clerk at 24*s.* a week. Within a few months the "poor relation" started on his own account with a dozen retorts, costing 570*l.*, which he almost immediately sold for 1,200*l.* It was Mr. Robottom himself who put this deal into his relative's reach.

That was a way he had of doing, and unostentatiously too, whenever he was in clover. The relation hung on to his patron. He became General Manager—with a very big "M" indeed—talked of clearing 20,000*l.* a year for Robottom & Co., travelled first-class, took in the *Times* newspaper, and—oh! culminating point of iniquity—began to strut about in the glory of a velvet coat. Then he clamoured for a partnership, and was kicked out by the long-suffering Arthur. His successor likewise grew to dignity and ultimately became a newspaper-proprietor at Mold. Mr. Robottom applied his whole energy to the oil-business, manufacturing naphtha, petroleum, and paraffin by hundreds of tons and starting two other companies in addition to his own. To think of himself simply as a coming millionaire must have been an excess of modesty to him in those days. And then, as the penny novelette has it, a strange thing happened. An American railway official was injured in an accident between New York and Boston and treated for his bruises by the unsophisticated natives of the locality with a marvellous substance floating on Oil Creek, Pennsylvania.



Borax Mule Teams.

The railway official was a man of observant habits, and, after being cured, revisited the neighbourhood, probed the banks of the creek, and "struck ile." A chemist friend of his examined it, and soon oil was spouting tonwise all over Pennsylvania. At the end of the chapter we behold the Cheshire golden butterfly broken, all British oil companies "busted," retorts selling for old iron, and a ruined Robottom cogitating the means of retrieving his fortune.

The luck of Gilead P. Beck had begun to shine, and that of Robottom seemed irretrievably gone. Rattan for crinolines, corozo-nuts (vegetable ivory), and kapok appear to have been the next articles to which Mr. Robottom turned his attention; but presently, having heard that borax obtained from the interior of the United States was used in California, he set out, upon what he considers his principal journey, to Nevada, in quest of the article. After many adventures in what was then an entirely unsettled part of the Republic—all graphically described—Mr. Robottom returned disappointed to San Francisco. There he fell in with a gentleman who was the fortunate owner of a tract of land near Death Valley, said to contain borax, but which he had never visited, and of the exact location of which he had but a hazy idea. This person offered Mr. Robottom 620 acres of the land for nothing if he would find his property for him and tell him what it was worth. Robottom accepted, and, after another perilous journey, found the deposits, which surpassed in richness his wildest hopes. He made arrangements for the conveyance of the borax by mule-team to San Francisco, returned homewards—although sorely tempted to stay on the Pacific Coast and take part in the gold speculation which was then at its height—and started retailing the article in penny packets. This business he sold afterwards to the Patent Borax Company, of Birmingham, and then started for Asia Minor to investigate the boracite deposits which had begun to be worked there by a French firm, the outcome of his journey being the formation of the London Borax Company, with 1,000,000*l.* capital. After that he turned his attention to the West coast of South America, where he explored the nitrate regions of Chile, penetrated far into Bolivia, and afterwards repeatedly visited Peru. It would not be practicable here to trace all Mr. Robottom's wanderings, of each of which he gives a straightforward account in his little book, occasionally, perhaps, a little discursive, but upon the whole, as good reading as one will find in any commercial book of travels.

A New Method of Publishing.

"How long has it taken you to write your book, Mr. Robottom?" we asked, after inspecting the proof-sheets.

"A twelvemonth precisely," confessed the author, somewhat depreciatingly. "Though it don't look big, there is a lot of work in it, and you know yourself that I have been hard at work upon it night after night."

And our representative recalled a few pleasant evenings spent with the author at his house at Gospel Oak, on which occasions Mr. Robottom, at a large table littered with maps, pamphlets, specimens of produce, and a fine collection of Brazilian beetles and butterflies, had fought his battles o'er again in conversation.

"Of course you will offer your book through the discount-booksellers, and at the railway stalls?"

"I shall do nothing of the kind, sir. These middlemen want too much profit. I am a novice at book-writing, but I will do my publishing my own way. I had the work printed at my own expense, and I shall sell it myself at one shilling net. No discounts for me. I have here (rummaging in a capacious pocket), a little handbill setting out the contents of the volume, and this I propose to use for making my book known."

"You don't mean to say you are going to stand at the corner of Mincing Lane distributing handbills promiscuously, or scatter them in the compartments of suburban trains?"

Mr. Robottom rubbed his chin.

"I don't think I need go that length. I have many friends here in the rooms, and I shall expect them each to buy a copy. Then I shall go round to all the London banks and try to sell it by the dozen there. I have also some good friends among you newspaper-people, and they may give me a lift. I shall keep a small stock in a friend's office here in the Lane, and execute orders promptly myself. Anyone who wants a copy can have it on sending stamps to Arthur Robottom, Commercial Sale Rooms, Mincing Lane. A shilling's the price—the popular bob."

Our representative wondered how this, probably unconscious, imitation of Mr. Ruskin's early publishing methods would work in practice, but he was not kept in doubt long. When he next came across Mr. Robottom, about a week ago, the book was "out," and booming. The press had been giving it the hoped-for "lift" the; happy author's pockets were bulging with letters from all parts of the country enclosing postal orders for copies; and Mr. Robottom seemed as completely happy as a healthy man who has seen the world, gained and lost several small fortunes, had a street in Birmingham named after him, and written his life's chronicle can be expected to feel. But still, when hailing the new author, our representative noticed that he, like the ancient Roman, has found that even in life's most delicious draught *surgit amari aliquid.* He has ordered, he says, 20,000 copies of the book to be printed, and knows that *they* will sell. But what he wants now is a circulation of 100,000, and only when that figure is reached he will feel completely happy.

Trade Notes.

Mr. H. B. Chibnall, maker of the "Dorina" nursery-biscuits, asks us to explain that these are sold through all wholesale houses, and not, as our recent paragraph would have suggested, through one specially.

The Tasmanian Eucalyptus-oil Company, of 138 Leadenhall Street, E.C., who are the proprietors of the "Platypus" brand, which has been widely advertised to the public, will in future supply their oil through wholesale dealers exclusively. They also announce that they have reduced their prices.

The partnership hitherto existing between Messrs. E. Barber, P. G. Laurie, and H. H. Barber, trading as colonial produce brokers, at 32 Fenchurch Street, E.C., under the style of Edward Barber & Co., expired by effluxion of time on September 3. The business will be continued at 9 Mincing Lane, E.C., by Messrs. E. Barber and H. H. Barber, under the style of Edward Barber & Son.

AT THE COUNTER.

"Supper of posis" is an order received by a Treherbert chemist. The supper was duly served.

Leith furnishes the following:—A seaside demand, "An anti-marine powder." Sequel to a picnic, "A cyclone of soda-water." M. A.

From the Antipodes.—A well-dressed woman requested a bottle of "Hair-manure," but, noting the puzzled look of the assistant, she quickly qualified the order by the word "Hexiker's."

Risky Posology.—"Two penn'orth of cough-mixture for 14 months and 2 years." Dose was stated at half small teaspoonful and small teaspoonful respectively. "Oh, I never measure it. I give 'em the bottle and let 'em sup"!—*Cornwall.*

The following was sent to a Gosport chemist:—"dear Sr will you make me up a little metcen I am so hill and in such pane in my in side and all my bons hakes my heed is so bad I have taken som drenk throo woirey and tremballs all over and feals all in a creap I thinks the colls it pickme up I knos I had it of you before Sr three peneth I thinks makes to doses do see wot you can do for me Sr."

"6 Thorless" (six 1*d.* packets Thorley's food).
"3*d.* peny worth Dalphia Comminity."
"Qushy."
"Cotton Wool for the lions" (loins).
"6*d.* peny Ryol."
"2*d.* Yellow Misilikyne."
Sent by Mr. E. Corke, Ticehurst.

Practical Notes and Formulæ.

ESSENCE OF PEPSIN.

MR. SIG. MÜHL gives the following formula for preparing an essence of pepsin:—

	Oz.
Glycerole of pepsin	3
Sherry	5
Glycerine	1
Simple elixir to make	16

This makes an essence the exact counterpart of a very popular preparation.

HAZELINE CREAM.

	Oz.
Lanoline	4
Soft paraffin	4
Hazeline	2

Mix.

—*Canad. Drug.*

ANIMAL CHARCOAL AS A PILL-EXCIPIENT.

M. E. VOILÉ is the originator of this idea. To make creosote pills place in a porcelain mortar 2 gm. animal charcoal, add 1 gm. of creosote, beat rapidly, and if the creosote is not entirely absorbed add more animal charcoal in small portions. The mass is now nearly pulverulent, and in order to bind it it is necessary to add 0·20–0·25 gm. turpentine (oleo-resin), then knead the mass rapidly, and divide into 20 pills. To make croton-oil pills take of croton oil ♏xx. and animal charcoal sufficient for 20 pills. For these pills it is unnecessary to use turpentine to bind the mass. Animal charcoal is also useful as an excipient in pills of a more complicated formula. Where, for instance, 1 gm. creosote is associated with 1 gm. each of tannin and iodoform, allow the animal charcoal to absorb the creosote, as in the above directions for creosote pills, then add the tannin and iodoform, mix intimately, and bind the mass with turpentine. The caustic taste of the creosote is considerably lessened by the animal charcoal, so that it is only necessary to roll the pills in magnesia or tolu. By means of animal charcoal the above medicaments can also be administered in the form of cachets. The author gives the following formulæ:—(1) Creosote, 2 gm.; washed animal charcoal, 5 gm.; mix intimately, and divide into 10 cachets. (2) Oil of turpentine, 5 gm.; washed animal charcoal, 10 gm.; mix intimately, and divide into 10 cachets.—*Bull. Pharm. Bord.* and *Amer. J. Phar.*

CATHARTIC ACID.

THIS acid, supposed to be the active principle of senna, has never, like aloin, given very satisfactory results—*i.e.*, in proportionate weights it is much more feeble than senna itself. It has been a question whether the somewhat tedious process of isolation hitherto adopted did not alter the constitution of the acid in some way, and there is correlative proof to that in the fact that by a new process a Dorpat student has obtained a cathartic acid which Dr. Kobert finds to be an active aperient in doses of 1 to 1½ grain, catharsis being produced in from three to eight hours. The process was as follows:—2 kilos. senna-leaves were covered with boiling water; after twenty-four hours the liquid was expressed and evaporated *in vacuo*, the residue treated with 95-per-cent. alcohol for twenty-four hours, and the liquid decanted; this operation was repeated, and the combined and filtered alcoholic solutions precipitated by neutral acetate of lead; the precipitate was thoroughly washed, made into a paste with alcohol, and decomposed with hydrogen sulphide; the excess of the latter was removed by a current of air, the mixture heated on a steam-bath for half an hour (using an inverted condenser), and the alcoholic solution separated; the residual lead sulphide was again extracted, and the combined filtrates mixed with ether, which caused the separation of a pale yellow precipitate; this was dissolved in 30-per-cent. alcohol and evaporated at a temperature not exceeding 50° C. The yield was 12–15 grammes; the product is amorphous, difficultly soluble in cold water, readily soluble in boiling water; the best solvent is a 30–40-per-cent. alcohol; ether, benzine, chloroform, and petroleum ether are without solvent action. The formula from the results of combustions appears to be $C_{30}H_{36}NO_{15}$.

AMERICAN COD-LIVER OIL EMULSIONS.

DRS. LEFFMAN AND BEAM have recently contributed to a Philadelphia medical journal results of analyses of some of the popular American emulsions, which are interesting. They are as follows:—

Name	Per cent. of oil claimed	Per cent. of oil found (by volume)	Remarks
Williams's emulsion of cod-liver oil with hyphophosphite of lime..	50	49·9	—
Phillips's palatable emulsion of cod-liver oil	50	48·9	Pancreatised
Scott's emulsion of pure cod-liver oil	50	49·5	—
Hydroleine	63·6	44·2	Pancreatised; contains salicylic alcohol
Maltine with cod-liver oil ..	30	35·9	Much maltose
Baker's emulsion of cod-liver oil with hypophosphites ..	50	10·7	—
Ditto (second sample)	50	18·0	—
Baker's pure cod-liver oil with extract of malt	—	8·4	Much maltose
Wilber's pure cod-liver oil and phosphates	—	37·3	—
Wampole's perfected and tastless preparation of cod-liver oil	the curative agents from 25 per ct. pure Norwegian cod-liver oil	None	14 per cent. alcohol

The authors consider the presence of salicylic acid with pancreatin objectionable, because it stops fermentation.

MANUFACTURE OF SOAP-POWDERS.

SCHREIB states (*Chem. Zeit.* and *J.S.C.I.*) that the washing-powders or soap-powders, which have latterly become important articles of commerce, always contain besides powdered dried soap a large percentage of sodium carbonate, generally in the form of dried soda-crystals. These powders may be prepared in either of the following ways:—

(1.) Anhydrous sodium carbonate or soda-ash is added to a "clear-boiled" soap-paste, and after thoroughly mixing, the somewhat stiff material is drawn off into cooling frames. The cold and hard soap thus obtained is then finely ground.

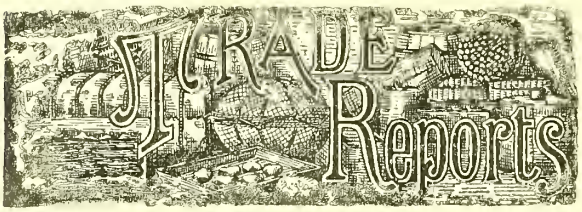
(2.) Soda-crystals and soap are melted together and then treated in the above manner. This method of manufacture, however, is only advantageous where soap-scraps are to be had.

A suitable apparatus consists of a wrought-iron vessel with a strong agitator contained in an interior cast-iron vessel, which can be cooled by water circulated in the outer vessel. The liquid soap is cooled whilst the soda-ash is slowly added and completely dissolved. During the grinding process care has to be taken not to overheat and thus soften the product.

The composition of soap-powders varies considerably. Only a small proportion of resin-soap can be used, as such soap is sticky and cannot be powdered. Olein soap may be used with advantage, and the olein may be saponified with sodium carbonate instead of the more expensive caustic leys.

As a small quantity of free chlorine is not objectionable in soap-powder, dark-coloured materials such as bone-fat, fish-oils, &c., may be used for making the soap, with an addition of a small quantity of bleaching-powder. To some soap-powders 2 to 5 per cent. of sodium silicate is added. A good washing-powder should contain—30–35 per cent. of fatty acid; 30–35 per cent. of sodium carbonate; and 30–40 per cent. of water. The inferior powders containing only 5–10 per cent. of fatty acid should not be used for the laundry; they are only serviceable for scrubbing purposes.

There is a soap-powder in the market containing a soap prepared by treating linseed with caustic soda directly. This soap contains certain impurities derived from the seed, which lather freely, and thus when the powder is used, give the impression of more genuine soap being contained in the powder than is actually the case.



Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., *September* 21.

Alleged Adulteration of Kauri Gum.

The New Zealand Government was informed some time ago by the Agent-General in London that complaints had been made that gum of very inferior quality, recently found in New Caledonia, was being shipped to Auckland, and there mixed with kauri gum for export. The relative values of the two products were 2*l.* per cwt. for the New Caledonian and 8*l.* per cwt. for the pure kauri. The Collector of Customs at Auckland has reported that for the year ending September 30, 1892, 3 tons 2 cwt. of gum were imported into Auckland from New Caledonia, the value being given at 158*l.* The importer is known, and it was ascertained that the whole had been exported as New Caledonian gum, part to London and the remainder to the United States, to ascertain the value of the product as a varnish gum. This New Caledonian gum has a smell of aniseed sufficiently marked to enable it to be easily distinguished and detected if mixed with New Zealand kauri. The collector had been informed that the New Caledonian gum reaches Sydney in considerable quantities, while New Zealand kauri is taken to Sydney by the intercolonial steamers and sent to Germany or France by the subsidised lines of those countries.

French Essential Oils.

The latest news from the South of France is to the effect that the great heat which has characterised the entire summer still continues. The jasmine and tuberose crops have been exceedingly abundant, and the conversion of these flowers into pomades has proceeded uninterruptedly save for a few days' rain. The peppermint-harvest is at an end. The yield is barely up to the average, and for certain choice lots of herb as much as 6*s.* 3*d.* per cwt. has been paid. Geranium-gathering has just begun; the quantity of this crop will be very middling at the best. The newly-distilled essential oils of Alpine flowers, lavender, spike, thyme, &c., produced on the itinerant stills are just beginning to arrive from the hills. Every year, when these flowers attain maturity, a whole army of distillers, either working on their own account or sent by one of the large perfumery firms, invades the Alps as far as the Piemontese valleys to distil these Alpine oils, which are afterwards brought into commerce through Grasse and other districts, and of which the consumption is growing larger every year, partly, it is said, because French lavender and spike are gradually superseding the Ceylon citronella-oil in the soap industry. During the last few years Algeria, however, has commenced to enter into competition with the French Alps as a producer of these oils, and this year the Algerian output appears to be particularly large. The prices for the new Alpine "essences" have not yet been fixed.

The Java Cinchona-plantations.

The official report of the Java Government cinchona-plantations for the second quarter of 1893 contains an interesting account of the alkaloidal development in young trees of the *C. calisaya Schuhkraft* variety, in the Lembang plantations, showing that the increase in the quinine percentage of the trees is largest between the ages of 12 and 18 months, whereas after four years of age the alkaloids increase but little. The following table demonstrates this:—

Age of Tree	Quinine	Cinchonidine	Quinidine	Cinch. + Amorph. Alkal.	Total per cent. of Alk.
1 year	2·18	—	—	2·64	4·82
1½ "	4·49	—	—	1·92	6·41
1¾ "	5·15	0·04	—	2·21	7·40
2 "	6·90	0·07	—	1·82	8·79
3 "	9·60	0·21	—	1·40	11·21
4 "	10·43	0·30	—	1·10	11·83
5 "	10·60	0·30	—	1·15	12·05

Some trees showed a decline in alkaloidal content at the age of 15. In one of them the percentage of quinine fell from 10·33 to 6·06 per cent., whilst that of cinchonidine increased. There are now in the open air on the Government plantations 2,874,000 cinchona-trees, of which 2,177,000 are Ledgers, 1,900 calisayas and Hasskaslianas, 650,000 succirubras and calopteras. 43,900 officinalis, and 2,000 lancifolias, the latter including 1,500 *C. pitayensis*. The nurseries contain 1,019,000 plants, of which 802,000 are succirubras and the remainder Ledgers.

The Decimal System in the United States.

At the Engineering Congress held at Chicago on August 1 last, a paper on the "Fundamental Units of Measure" was read by Mr. T. C. Mendenhall the Superintendent of the Standard Weights and Measures at Washington. Mr. Mendenhall stated that the U.S. Office of Weights and Measures would in the future regard the international prototypes, metre and kilogram, as fundamental standards; and the customary units, the yard and the pound, would be treated as derived therefrom. This amounts to an official notification that the United States have formally adopted the metre as the standard of measurement, and that in future in official business the yard will be represented as a fraction of the metre, and the pound as a fraction of the kilogram. This is a great step towards the introduction of the metric system in the United States, where there is now a strong desire to change the existing weights and measures for those of the metric system.

Acid (Carbolic).—The makers have not made any change in price, but second-hand holders are weak. *Liquid*, 95 to 97 per cent., can easily be bought at 1*s.* 6*d.* per gallon. *Crystals*, 34° to 35°, offer at 5½*d.*, and might perhaps be had at a shade less; 39° to 40° crystals are 1*d.* above these prices.

Acid (Citric).—The market is firm at 1*s.* 6½*d.* for BP quality from the makers. There is nothing to be had now in the second-hands.

Acid (Tartaric).—The market is easier all round. English brands may now be had at 11½*d.* per lb. on the spot, foreign at 11*d.* per lb.

Aloes.—There has been an arrival of 110 packages *Cape* aloes from Mossel Bay. They are much wanted.

Angostura Bark is lower in price now than it has been for a long time. A lot is offering from New York at 3*d.* per lb., c.i.f. terms.

Anise.—Russian seed, of which the crop is said to have been very small this year, is rising in price quickly, and from 26*s.* to 27*s.* must be paid now for fair quality.

Balsam (Copaiba).—It is reported from New York that the price of copaiba balsam there keeps declining for want of buyers. *Pará* balsam, as imported, being offered at 1*s.* 5*d.* per lb., c.i.f. terms, though a little less might be accepted, perhaps. There is only a small stock of *Maranham* balsam in New York, however, quoted at 1*s.* 5½*d.* per lb., c.i.f.

Bleaching-powder.—Very firm, at 9*l.* 10*s.* to 9*l.* 15*s.* on the spot; soft wood and rails at Liverpool, 8*l.* 10*s.*; f.o.b., 8*l.* 15*s.* The Tyne price is 8*l.* 5*s.* on rails, and 8*l.* 10*s.* f.o.b.

CAFFEINE has been advanced in price by some of the makers, who now quote from 7*s.* to 7*s.* 3*d.* per lb, both for the pure alkaloid and for the citrate.

CAMPHOR (CRUDE).—No spot sales are reported this week. Japan is quoted at 132*s.* 6*d.* c.i.f., and for China the higher price of 108*s.* c.i.f. is now asked. A few days ago the quotation was as low as 101*s.* 6*d.* c.i.f.

CANARY-SEED is reviving somewhat, and prices have improved to about 34*s.* for fair Turkish seed in the private market. On Wednesday, at the spice-sales, however, another consignment of 165 bags *Turkish* seed sold without reserve at easy prices—viz., 32*s.* 6*d.* to 33*s.* 6*d.* per cwt. Morocco and Spanish seed is out of the market at present, prices being much too high for Turkish seed. The arrivals of new Turkish seed remain large.

CARAWAY-SEED is about 1*s.* lower in price, and offers now at 29*s.* 6*d.*, f.o.b., for good Dutch; Russian is held at 22*s.* to 25*s.* from the warehouse.

CASCARA SAGRADA.—In America the market has much improved lately, owing to neglected collection and a natural rebound from depreciated values. The total available supply of old and new bark is estimated at about 150 tons, against an annual consumption said to amount to 400 tons. The quotations from America are at present:—Old bark, 35*s.* to 37*s.* 6*d.*; new, 32*s.* 6*d.* to 33*s.* per cwt., c.i.f., from New York. New bark from the Pacific Coast, 31*s.* 6*d.* per cwt., c.i.f. terms.

CAUSTIC SODA has advanced further. In Liverpool 70-per-cent. is held for 10*l.* 10*s.* on the spot; 60-per-cent. is no longer offering. Tyne quotes 11*l.* 15*s.* per ton for 76–77-per-cent.; London, 10*l.* 15*s.* to 11*l.* for 70-per-cent. spot, and 10*l.* for 60-per-cent. For delivery over next year, however, 70-per-cent. offers at 8*l.* 15*s.* per ton.

CHAMOMILES.—Prices are slightly easier, but the quality is also falling off; most of the fine flowers have now been sold. Prices range according to description at 60*s.* to 78*s.* per cwt.

CHLORATE OF POTASH.—Very firm, at $8\frac{3}{4}d.$ to $8\frac{7}{8}d.$ per lb. October delivery is quoted at $8\frac{1}{2}d.$, November-December at 8*l.*, first half of 1894 at $7\frac{1}{2}d.$, and second half at $7\frac{1}{4}d.$ per lb.

CINCHONA.—As already foreshadowed by us last week, the cinchona-sales which took place here on Tuesday were the smallest in extent known for many years, while the quality of the bark offered was mostly very poor, not a single parcel of rich grey or yellow barks being shown. The seven catalogues embraced of:—

	Packages		Packages	
Ceylon cinchona	278	of which	259	were sold
East Indian cinchona	302	"	224	"
West African " ..	66	"	66	"
	646		549	

The total amount of bark placed on sale contained the equivalent of about 4,000 lbs. sulphate of quinine, or, say, 2·56 per cent. on the average. There was rather more animation in the competition than has been observed lately, principally because one of the German factories which abstained from buying on the last occasion now again entered the market, and also because the druggists bought a considerable quantity of bark; but no actual alteration in price can be reported, the unit remaining $\frac{1}{2}d.$ per lb. The following are the quantities purchased by the principal buyers:—

	Lbs.
Agents for the Mannheim and Amsterdam works ..	40,364
" Auerbach factory	22,746
" Frankfort o/M. and Stuttgart works ..	18,896
Messrs. Howards & Sons	18,636
Agents for the Paris factory	6,000
" Brunswick factory	4,739
Sundry druggists	18,486
Total quantity of bark sold	129,867
Bought in or withdrawn	26,600
Total quantity of bark offered	156,467

The following prices were paid for sound bark:—

CEYLON CINCHONA.—*Original*—Red varieties: Ordinary dusty to fair, partly quilly stem and branch chips, 1*d.* to $1\frac{1}{2}d.$; low dark, dusty chips, $\frac{1}{2}d.$ to $\frac{3}{4}d.$; dull root, $1\frac{3}{8}d.$ per lb. Grey stem chips, poor and dull, $1\frac{3}{4}d.$ per lb. Yellow stem chips, mixed with root, $3\frac{1}{8}d.$ to $3\frac{1}{4}d.$; small to fair stem and branch chips, $1\frac{5}{8}d.$ to $2\frac{3}{4}d.$ per lb. Hybrid dull chips, $1\frac{1}{8}d.$; root, $1\frac{3}{4}d.$ per lb. *Renewed*: dull to good bright red chips, $1\frac{3}{8}d.$ to $2\frac{1}{4}d.$ per lb. Hybrid stem chips, $2\frac{1}{8}d.$ to $2\frac{1}{4}d.$ per lb.

EAST INDIAN CINCHONA.—*Original.*—Red varieties: dusty and low to fair bright shavings, $\frac{7}{8}d.$ to $1\frac{3}{8}d.$; fair chips, 1*d.* to $1\frac{1}{4}d.$; root, $1\frac{3}{4}d.$; medium druggists' quill, slightly damaged, $4\frac{5}{8}d.$ per lb. Grey varieties: very small twigs, $\frac{3}{4}d.$; fair to good branch chips, $1\frac{1}{4}d.$ to 2*d.*; dull to fair root, 2*d.* to $2\frac{3}{4}d.$ per lb. Yellow low damaged chips, $\frac{7}{8}d.$ to $1\frac{1}{8}d.$ per lb.; small twigs, $\frac{1}{2}d.$ to $\frac{3}{4}d.$ per lb. *Renewed*—Ordinary to very dusty but bright red chips, $1\frac{3}{8}d.$ to $2\frac{1}{4}d.$; fair spoke-shavings, $1\frac{1}{4}d.$ per lb. Yellow good chips, $1\frac{3}{4}d.$; damaged ditto, $\frac{7}{8}d.$ to $1\frac{3}{8}d.$ per lb.

WEST AFRICAN CINCHONA.—Sixty-six bales, totalling about 6,500 lbs. of *Succirubra* bark in fair medium to thin, partly irregular and slightly damaged quill, from St. Thomas, sold at from $2\frac{3}{4}d.$ to 3*d.* per lb. to the export druggists.

At the Amsterdam auctions on October 5, 4 431 packages bark, containing 364 tons of cinchona, will be offered, exclusive of Government-grown bark. During the month of July the exports of cinchona from Java were heavy—viz., 788,640 Amsterdam lbs., against 279,094, 1,164,163, 385,512, and 305,397 Amsterdam lbs. in the months of July of the four preceding years.

CLOVES are rather easier. At auction a small part of 371 bales *Zanzibar* which were offered realised $2\frac{3}{4}d.$ to $3\frac{1}{8}d.$ per lb. for good to fine Zanzibar.

COCA.—The American market is reported to be glutted with best quality of bright green Truxillo leaves, which are offered in ton-lots at the rate of $7\frac{1}{2}d.$ per lb., c.i.f., which is the lowest price on record for coca; bold Huanoco leaves are firm at 1*s.* 3*d.* per lb., c.i.f. At the Amsterdam cinchona-sales, on October 5, a case of about 47 lbs. "Bolivian coca," of direct import, belonging to the Cinchona-cultivating Company, "Cinchone," will be offered.

COCAINE.—There has been a sudden reduction in price in the brands of all makers but one, *Hydrochlorate* being now quoted by all of them at 15*s.* 6*d.* per oz. for 100-oz. contracts, and 15*s.* 9*d.* for quantities between 25 and 100 oz. It is said that this move is due to the desire of the old manufacturers to put a stop, if possible, to the competition of the younger maker, who is believed to have been under-selling them; that manufacturer reports that he has not followed the present reduction, and that his "official" price is still 16*s.* per oz. It is also said that the more plentiful arrivals of crude cocaine are the cause of the reduction.

CREAM OF TARTAR is lower, best white French crystals offering at 65*s.* per cwt., f.o.b. Bordeaux. In London the same quality may be bought at 70*s.* per cwt., on the spot.

CUMIN-SEED.—The new Malta crop is now coming in. It is said to be a small one, but not much credence is generally placed upon Malta reports. From 35*s.* to 36*s.* is quoted for new seed.

DAMIANA.—The new crop is expected on the New York market about January. Ordinary quality leaves are now quoted as high as 1*s.* 3*d.* per lb.

ENGLISH ESSENTIAL OILS.—In the Mitcham district all essential oils have now been harvested for some time. At present holders of good *Lavender oil* ask no less than 70*s.* per lb. Very little oil has been distilled this year—in the first place, because the herb was exceedingly scanty; and, secondly, because what there was of it realised better prices at Covent Garden than it would have done for distilling. *Peppermint oil* is also exceedingly scarce. Early in the season sales of good quality were made for export to Germany at 33*s.* per lb., and now 34*s.* is required for the best kind. It is feared, moreover, that the exceedingly dry and hot weather, which has destroyed many of the young plants, will make its effect felt next year as well as this, as there seems to be but little herb about for planting out. Of *Chamomile oil* there has been next to nothing distilled. In the Mitcham district it is said that there was only one field in which the flowers were moderately good, and that was protected by hedges from the sun. The proprietor of this field only got half a stillful from his crop. Altogether the prospects are very gloomy.

Ergot of Rye.—Very little business has been done since the sales, new *Spanish* is mostly limited at 1*s.* 6*d.* per lb.; new *Russian* has not yet arrived. There have been large arrivals of new ergot from Spain recently, some 160 bags being landed this week.

Fine Chemicals.—Among the articles belonging to this category which have been recently reduced in price by some of the makers, we notice acetanilid, lactic acid, bromoform, cantharidine, cumarine, ergotine, heliotropine, phenacetin, and terpin-hydrate.

Golden Seal.—A new crop of this root is being marketed now; there is no demand, and prices are declining, 10½*d.* per lb., c.i.f., is quoted for wholesale lots.

Gum Acacia.—A fair amount of business in *Soudan* gums is reported from Liverpool at unaltered prices. At to-day's auctions of 3,823 packages (of which only 375 sold), *East Indian* gums were generally cheaper—Ghatti fine up to 49*s.*, medium to pale sorts, 21*s.* to 28*s.* 6*d.* per cwt.; Amrad, dusty yellow to fair pale, 30*s.* to 41*s.*; brown, 28*s.*; pale pea-size, 41*s.*; Aden, reddish frosted to fine bold pale, 32*s.* to 51*s.*; reddish scented Bombay, 26*s.* per cwt. A parcel of *Soudan sorts* was forced off without reserve, and brought down the market 2*s.* to 4*s.* per cwt, selling at 40*s.* 6*d.* to 42*s.* 6*d.* for ordinary, and 53*s.* to 54*s.* for good soft pale. Dull to glassy brown yellow *Cape* gum brought 15*s.* 6*d.* to 27*s.*; dusty reddish to soft white *Mogadore*, 34*s.* to 42*s.* per cwt. *Australian* gum quiet at 10*s.* to 11*s.* for black, and 25*s.* to 27*s.* per cwt. for ordinary red.

Jaborandi.—It is said that there is practically none to be had in America.

Jalap.—There has been quite a run upon this article since the last auctions, a large firm in the home trade being reported to have bought up all the jalap which was offering in the market. The price of good Vera Cruz has advanced by several pence—1*s.* 5*d.* per lb. being the last figure reported paid, against 1*s.* 3*d.* per lb. early in the week. The buyer, who has now obtained control of the main part of the stock, quotes 1*s.* 6*d.* per lb. Sales have been made from Hamburg at 165*s.* per cwt. f.o.b.

Oils (Essential).—American *Oil of Pennyroyal* has declined considerably, and the price is 6*s.* per lb., c.i.f., for new quality. *Spearmint* is also cheap at 6*s.* 6*d.*, c.i.f. The Platypus *Eucalyptus* oil has recently been reduced in price, and may now be had at 2*s.* 9*d.* per lb. in wholesale quantities. *Menthol* is scarce and dearer at 11*s.* 6*d.* per lb., on the spot. For delivery, 11*s.* 3*d.* per lb., c.i.f. terms is asked. It is true that one dealer quotes 11*s.* per lb., c.i.f., but it is doubtful whether any good menthol could now be secured at that price. American *oil of peppermint* is steady, 12*s.* per lb. being asked for HGH. *Japanese peppermint oil* is also firm and rather scarce; up to 8*s.* has been paid on the spot for ordinary quality. *Cassia oil* is flat, with retail sales privately at 3*s.* 2*d.* per lb.

Opium.—It is reported that a fair amount of business has been done in low-grade opium in London this week. Fine *Karahissar* has also been sold at 12*s.* 6*d.*, and good Persian up to 11*s.* 6*d.* per lb. Writing from Smyrna on September 9, our correspondent says: „Up to September 7 no further transactions in opium have taken place on our market, but on September 8 the following sales were concluded:—Twenty-four cases new for the Dutch Government, 13*s* 3*d.* to 13*s.* 5*d.*; 1 case old Yerli talequale, 11*s.*; 14 cases old current talequale, 10*s.* 7*d.*; 2 cases new current talequale, 10*s.* 5*d.* per lb., f.o.b. If these purchases continue, we shall expect higher prices in the course of another ten to fifteen days; but our market may again decline to 10*s.* 2*d.* to 10*s.* 5*d.*, according to quality, for manufacturing, if there is no further inquiry. Our Constantinople correspondent writes on September 15:—"We have to advise a firmer tone on this side, consequent on the purchase of some 40 cases for American account, for which up to 10*s.* 9*d.*, f.o.b., has been paid for *ordinary druggists'* grades. Twenty-three cases *Tokat* have been taken by a speculator at up to 11*s.* 8*d.* per lb.; this party already holds some 80 cases new crop, and states his intention of buying all offering up to 11*s.* 9*d.*, f.o.b., with the idea of eventually cornering the market in this grade. This year's outturn of Tokats is reported to be considerably under 200 cases. Should the American demand increase, values for *druggists'* would very soon touch 12*s.* per lb."

Opium-salts.—*Morphia*, for the present, remains unaltered; while *Codeia*, in spite of the approach of the chief consuming-season, has a slightly easier tendency.

Quicksilver remains very steady at 6*l.* 10*s.* for the importers, and 1*s.* to 1*s.* 6*d.* less on the second-hand.

Quinine.—A very considerable amount of business was done on Saturday last and in the early part of the present week. It is said that nearly the whole of the purchases have been made by a large American firm. They amount to about 200,000 oz., for which from 8⅞*d.* to 9*d.* per oz. has been paid. Since then, the market has eased off, and to-day is flat, at 9*d.* per oz. for second-hand German bulk.

Shellac.—Firm at auction, with an advance of 1*s.* on orange and garnet. Of 710 cases offered, 250 sold at 115*s.* for fair unworked second orange, and 107*s.* 6*d.* to 115*s.* for ordinary cakey to good bright worked.

Soda-crystals have advanced to 62*s.* 6*d.* for the London makers, or 60*s.* to 62*s.* 6*d.*, f.o.b. The Tyne quotation is 55*s.*

Star-anise.—There has been some inquiry for Chinese star-anise, and about 100 cases have been sold on the spot at 65*s.* to 67*s.* 6*d.* per cwt.; to arrive, 70*s.*, c.i.f., is quoted, but dealers hold off on the expectation of lower rates.

Sulphate of Copper is considerably firmer. In London prices now run from 15*l.* to 15*l.* 15*s.* per ton, and in Liverpool the quotation is 15*l.* 10*s.* to 16*l.* per ton f.o.b.

Tea.—The tea-market has taken an upward turn this week, and lower grades of Indian and Ceylon show a sharp advance of ½*d.* to ¾*d.* per lb. Indian sales have been fairly heavy, but most of the dealers hold light stocks and had sold their last week's purchases pretty readily, and an advance of fully ¼*d.* per lb. was established on Monday and a further advance on Wednesday. The Ceylon sale on Tuesday was small and bidding very animated, good medium Pekoes showing here and there as much as 1*d.* to 1½*d.* advance on prices of a fortnight back. Congous are firm in sympathy with other growths, but, so far, cannot be quoted dearer.

Turmeric.—There has been some business in Bengal root at from 16*s.* 6*d.* to 18*s.* per cwt., according to quality.

Valerian-root.—Steady; 30*s.* has been paid for good French, for October delivery.

Wax (Japan).—A dull market, with small sales of good pale squares at 32*s.* 6*d.*; for arrival, 34*s.*, c.i.f., is quoted.

THE LIVERPOOL MARKET.

Balsam Copaiba.—In the absence of arrivals, holders are very firm in their views, at 1*s.* 7½*d.* to 1*s.* 8*d.* per lb. for *Maranham*, according to grade. There are a good many inquiries.

Chillies.—Sales of fine bright red *Sierra Leone*, at 35*s.* per cwt. in quantity, have just taken place.

Guinea Grains.—Although inquired for, no actual business has transpired at price asked by holders—19*s.* per cwt.

Gum Acacia.—The steady demand still continues; 20 serons good white *Soudan* sorts just arrived sold freely at 55*s.* to 56*s.* 6*d.* per cwt. Business has also been done in hard amber at 42*s.* 6*d.* to 45*s.* per cwt.

Honey.—The new *Californian*, of good flavour and colour is arriving overland. New *Chilian* is also coming on the market.

Kola Nuts.—A small parcel of *African* sold at 4¼*d.* per lb.

Oil (Castor).—The market has experienced a sharp rebound, for after declining to 2¼*d.* for *Calcutta* seconds, at which sales were made, it has recovered to 2⅜*d.* per lb., and some ask 2½*d.* per lb. First-pressure *French* is unaltered at 2 7/16*d.* to 2½*d.*

Seed (Canary).—The anticipated advance has taken place, and sales of ordinary seed have been made at 33*s.* 6*d.*, while forward offers have been withdrawn.

Wax (Bees').—Nine bags yellow *Chilian* fetched 7*l.* 10*s.* White is held for 8*l.*; grey to yellow, 7*l.* to 7*l.* 5*s.*

THE NEW YORK MARKET.

(From our Correspondent.)

NEW YORK, September 12.

THERE is at last some degree of life manifested in the drug-market here. The upward tendency of stocks on Wall Street, the resumption of operations in various lines of industry throughout the country, and the generally favourable crop-report, together, possibly, with the action of the House of Representatives in sending up to the Senate the Bill to repeal the Silver Coinage Act, have given some tone to the financial condition of the country. There is also a limit beyond which restriction of buying can scarcely be carried, and the light purchases of the past few months have left the country merchants with almost no stock with which to meet the autumn demands. The feeling of increasing confidence also leads jobbers to be more active in soliciting orders and less chary of filling them. *Alcohol* has declined, under pressure from outside distillers, to $2.18 to $2.22. *Canada balsam fir* has been inquired for in a small way, and quotations have advanced to $2.75. Other balsams are quiet, at unchanged figures. *Coca*-leaves are jobbing fairly well in small lots, at 15c. to 18c. for Truxillo, and 28c. to 30c. for Huanoco. *Cuttle-bone* is dull, at 11c. to 12c. for Trieste. *Menthol* is growing scarce on the spot, and up to $3.80 is asked for ordinary Japan, though no sales are reported at that figure. *Opium* has strengthened under a good consuming demand, and for case lots $2.55 to $2.60 is now wanted. *Quinine* has been active in the jobbing way during the week at 17¾c. spot cash, though 18¾c. to 19c. is the quotation for sales made on the regular terms. The domestic *Sugar-of-milk* market has been disturbed by the entry of a new manufacturer into the competition for trade, and prices have eased off to 11c. to 12c. *Nitrate of soda* is quiet, at $1·70 to $1.75 for car-load lots. *HGH peppermint oil* has been selling fairly well in small lots, the general figure being $2.50 to $2.55, though in some quarters $2.60 is the asking-price. No business is reported in bulk oil, which is quoted at $2.25 for Western and $2.40 for Wayne county. Outside holders are shading the manufacturers' prices for refined *Camphor*, which are 46c. to 47c. *Mexican sarsaparilla* is somewhat weaker, though not positively lower. The local inquiry for *Senega*-root is improving, though 36c. to 38c. is the quotation still.

(Telegram from our Correspondent.)

NEW YORK, Thursday Morning.

TRUE Canada balsam has advanced to 30c. per lb., and it seems as if a corner were projected in the article. Truxillo coca-leaves, which were already very low, are again cheaper, and offering at 12c. per lb. here. There has been a big run on jalap, the whole of the stock in the importer's hands having been bought up. H. G. Hotchkiss' oil of peppermint has fallen in price to $2.50 per lb., and Mexican sarsaparilla is also lower at 9c. per lb. This week's arrivals were 14 tons. Senega-root of fine quality is offering for less money—viz., 33c. per lb.

THE DUTCH MARKET.

AMSTERDAM, September 14.

THE cinchona-auctions to be held here on October 5 will consist of 4,485 bales and 278 cases, or about 391 tons, divided as follows:—From Government plantations, 332 bales (about 33 tons); from private plantations, 4,153 bales and 278 cases (about 358 tons). This quantity contains: Of druggists' bark—*Succirubra* quills, 14 bales 160 cases; broken quills and chips, 80 bales 118 cases; root, 91 bales. Of manufacturing bark: *Ledgeriana* broken quills and chips, 3,186 bales; root, 973 bales. *Hybrides* broken quills and chips, 133 bales. *Officinalis* root, 8 bales.

THE SALIVA OF THE CAT swarms with micro-organisms, amongst them one which is capable of killing guinea-pigs and rabbits in twenty-four hours.

Medical Gleanings.

A STABLE SOLUTION OF ERGOTIN.

Ergotin.	gr. xv.
Acid. carbolic...	gr. iss.
Aq. dest.	♏ lxxv.

Solve et filtra.

—*Nouv. Rem.*

THE KINDS OF ANÆSTHETIC USED.

ST. BARTHOLOMEW'S HOSPITAL report for the year 1892 shows that during the year anæsthetics were administered 4,033 times, and those used were:—Chloroform, 2,031 times; nitrous-oxide gas, 1,006 times; ether, 866 times; and gas and ether, 130 times. These figures are rather important considering how chloroform is decried in the metropolis.

MURURÉ JUICE.

THIS juice is stated by Dr. Chernowitz to be extracted from the incised bark of *Bichetea officinalis* (Urticaceæ). It is an alterative and antirheumatic, and is known also as "Vegetable Mercury." It is a thick, muddy, reddish, sweetish acid fluid, sp. gr. 1,100, has a vinous odor, and is said to contain an alkaloid. The juice is extensively employed in Brazil in grave cases of syphilis, and in rheumatism. The dose is 1 fl. dr. in water, once every other day. It is drastic when employed in large doses.

TANSY AS A REMEDY AGAINST EPILEPSY.

S. A. SIMINOFF (*Med. Obozr.* xxxix. 1893, No. 4, pp. 391-2) details three cases of epilepsy cured by him by the administration of an infusion of common tansy. He has also used this decoction with good effect in cases of neurasthenia, where valerian had ceased to be effective. A glassful of the infusion of the herb (either fresh or dried) is given to the patient at night and in the morning.

TO SOFTEN AND WHITEN THE HANDS.

Borate of soda	ʒij.
Glycerine	℥iv.
Lanolin	℥j.
Eucalyptol..	ʒj.
Ess. of bitter almonds	♏xx.

Apply at night, and afterwards dust the hands with Indian chestnut flour, and cover with gloves.—*Med. Press.*

UNG. NAPHTHALINI COMP.

A CORRESPONDENT of *Phar. Zeit.* gives the following formula for this ointment, which is used in eczema and psoriasis:—

Naphthalin.	ʒij.
Acid. benzoic.	ʒj.
„ boric.	ʒj.
Vaselin. c. cerâ flav. (3:1)	℥ij.
Bals. peruv.	ʒj.
Tinct. benzoini	ʒij.

M. Ft. unguent.

HYDROCHLOROSULPHATE OF QUININE.

SINCE the introduction of this peculiar double salt of quinine fully a year ago, we have heard little about it from therapeutists. Dr. J. K. Crook, of New York, however, communicates a paper on it to the *American Medico-Surgical Bulletin*, in which he says he has tried it in a variety of conditions, including pneumonia, influenza, bronchitis, muscular rheumatism, chronic malarial poisoning, acute intermittent fevers, and in simple debility, and anorexia. Dr. Crook has found the drug to possess all the common well-known physiological properties of the sulphate of quinine, but it has two important advantages—(1) its ready solubility admits of its employment hypodermically; and (2) this property also renders the preparation more digestible and more readily assimilable by the stomach. We still require something more than this report. It has been stated that the quinine molecule is rearranged in the synthesis of the salt, and if that be so, the physiological action is sure to differ, though slightly.

CORRESPONDENCE

MISCELLANEOUS INQUIRIES.

The Editor replies to queries of general interest, in the order in which they are received. Replies are inserted according to the space available. Postal answers cannot be supplied.

Back numbers, containing formulæ, educational or other specific information can be obtained from the Publisher.

112/69. *Jacobus.* — (1) The sample of mandrake-root is *Podophyllum peltatum*, or American mandrake. (2) Headache-powders.—Any of these you may use:—(*a*) Phenacetin, 8 to 10 grs.; (*b*) antipyrin, 10 to 15 grs.; (*c*) salicylate of sodium, 10 to 20 grs.; or (*d*) quinine sulphate gr. ij, and ferric oxide gr. xv.; mix. Whichever of these you use the dose is to be repeated every three or four hours. Also see neuralgia-powders in formulæ 4 and 5 published September 9, page 391. (3) Gripe-mixture or Infants' Preservative, without laudanum, to answer your label:—

Magnes. carb. levis	ʒj.
Spt. ammon. aromat.	ʒiv.
Ol. anisi	♏xx.
Ol. anethi	♏xx.
Ol. lavand. exot.	♏v.
Syr. croci	ʒj.
Syr. papaver.	ʒj.
Aqua ad	℥xx.

M.

Dose: From 30 drops to 2 teaspoonfuls as required.

(4) Liquefied Carbonic-acid Gas.—As to its advantages and uses consult any of the aërated-water machinery makers who advertise in this journal; see also a very interesting letter from Messrs. Barnett & Foster in the issue of February 8, 1890, page 203. (5) For Formulæ for the Preparation of Aërated Waters see Stevenson's & Howell's book.

116/44. *Thunder.*—The best Aromatic Oils to Blend with Oil of Wintergreen in a saponaceous tooth-powder would be oil of peppermint and oil of cloves.

110/62. *A. M.*—For Sticking Glass Labels on Drawers, the best cement to use is a thick solution of shellac in benzole, in which guttapercha in the proportion of 1 in 12 has been dissolved.

116/17. *Leo.*—The Kerosene mentioned in the formula for an Insecticide in issue of May 28, 1892, page 768, is the ordinary kerosene oil; the stronger-smelling and more readily inflammable, the better. You ought to have no difficulty in obtaining it from the usual dealers in burning-oils.

115/18. *Scarbro.*—The use of chloroform-water for the Neuralgia-mixture will improve its keeping qualities. If you wish to add syrup of croton chloral, there is no reason why you should not, only in that case leave out the glycerine, and note what has been said to "Neuralgia" concerning the same mixture, especially as to the addition of a small quantity of mucilage. Why not dissolve the croton chloral, however, in the glycerine, in which it is readily soluble with the aid of a gentle heat?

110/52. *J. H. C.* wishes suggestions as to any alteration upon the formula for Collodium Callosum of the "Extra Pharmacopœia." He finds when made for a month it gelatinises, and is not then suitable for use as a corn-paint. Use the collodion only half instead of three-quarters strength. See that the stopper or cork of the stock-bottle always fits closely. When this is attended to, so far as our experience goes, gelatinising is not likely to occur; if it should still occur, try the further addition of spirit and ether in the proper proportions, and change the make of the collodion. The pyroxylin in collodion in time changes in properties.

114/93. *Gout.*—It is not possible to make a creamy emulsion of the White Liniment. You have omitted a very essential ingredient—viz., water; you have also too much spirit, and the presence of liq. ammon. fort. and ac. acetic. in the same compound does not improve your chances of obtaining a permanent creamy emulsion. Try following modification:—

Sapo moll.	℥viij.
Ol. terebinth.	℥xij.
Liq. ammon. fort., ·830	℥viij.
Camphoræ	ʒv.
Lin. aconiti	ʒj.
Spt. vin. meth.	℥iv.
Ol. eucalypti	♏ij.
Ol. adipis	℥viij.
Aqua ad	Oiij.

M.

Dissolve the camphor in the turpentine, add the oils, the ammonia diluted with an equal volume of water, and shake well. Rub up the soap with the spirit, add the remainder of the water, stir until dissolved; add this gradually to the emulsion; lastly, add the liniment of aconite.

113/63. *Felix.*—Carbolic Tooth-powder:—

Acid. carbolic.	ʒss.
Sodæ bicarb.	ʒiss.
Pulv. pot. chlor.	ʒss.
„ sacch. alb.	ʒij.
Cretæ præcip.	℥xij.
Ol. caryoph.	♏viij.
Ol. rose-geranii	♏viij.
Ol. limonis	♏xv.
Terra rosa vel carmine	q.s.

M.

Sulphur Lotion for the Skin:—

Sulph. præcip.	ʒiv.
Calam. præparat.	ʒj.
Camphoræ	ʒss.
Aq. coloniensis	℥iv.
Glycerini	ʒj.
Aq. sambuci ad	℥viij.

M.

110/33. *Microtome.*—Brown Cement suitable for microscopic work.—Either a thick solution of shellac in vegetable naphtha, or of guttapercha in chloroform or bisulphide of carbon. Useful books for Cutting and Mounting Sections.—"Hogg's Treatise on the Microscope" (Warne, 7*s.* 6*d.*) and Squire's "Methods and Formulæ" (Churchill, 3*s.* 6*d.*).

110/11. *Neuralgia* has been trying a formula given in the DIARY for a Neuralgia-mixture, and finds that, although it is very effectual, it does not keep well. It forms a dirty deposit; ought it to be filtered? The mixture is—

Tinct. gelsemii	℥iij.
Tinct. quinin. am.	℥vj.
Glycerini	℥vj.
Aqua ad	℥vj.

M.

Mix all the ingredients except the tincture of quinine, add 2 drachms of freshly-prepared mucilage of acacia, then add the quinine tincture with a brisk shake. Label "Shake the bottle."

It ought not to be filtered. He has also tried one published in this journal three weeks since, and finds it give a copious deposit. It consists of quinine in acid solution, along with tinctures of gelsemium and cardamoms with glycerine. We have tried it, but fail to get a deposit using distilled water. If it is to be kept for any time, use chloroform-water prepared with distilled water. Any deposit formed in this mixture is most likely due to the cardamoms, or possibly to a trace of sulphate of lime if a hard water has been used.

110/37. *W. R. T.* asks for a recipe for a Flexible Mould Suitable for Plaster Casts, other than gelatine or printers' roller-composition. Dentists' modelling-wax, or sheet gutta-percha softened by being immersed in very hot water, will suit. A suitable modelling-wax may be made by melting 3 parts of white wax or hard paraffin, 1 part of clear rosin, and 1 or 2 parts of olive or almond oil, according to purpose or flexibility required.

119/38. *Porto* puts a curious question to us in regard to the metric Equivalent of the Solid and Fluid Ounces. The British Pharmacopœia says a fluid ounce is equal to 28·397 cubic centimetres, and the ounce is equivalent to 28·3495 grammes. As the gramme and cubic centimetre of water are equal in weight, why should there be the difference indicated in the Pharmacopœia (if it is right)? The Pharmacopœia is right, and the seeming anomaly is due to the fluid standards being determined at different temperatures. The fluid ounce is the volume of 437½ grains of water at 60° F., while the cubic centimetre is determined at 4° C. From that point upwards it measures 1 c.c. *plus* a fraction, although the weight does not change, and when it reaches 60° F. the 28·3495 grammes or c.c. of water (= 1 oz.) have expanded to 28·397 c.c.

"We have an inquiry for 'Dross of Oil.' The party was recommended to it in the correspondence-column of the *Field*, as being used to attract mice. Would you kindly inform us the nature of this through the *C. & D.*, and oblige, ALOES" (113/2). [Ol. rhodii.]

184/13. *Hiera Piera.*—The Ringworm-specific reported on September 16, page 465, should be prepared with glycerine, not with water.

119/8. *J. M.*—Apothecaries' weights are always intended when the signs ℔, ℥, and ʒ are used. See the "Art of Dispensing," page 13.

119/28. *Zymine.*—An interesting article on the *Myrica Gale* and its uses, by Dr. A. Hunter, of Edinburgh, was published in THE CHEMIST AND DRUGGIST of April 15, 1884. We do not remember any other pharmaceutical treatise on it.

117/50. *Devonia.*—Cheap Baking-powder, with acid sulphate of potash:—

Acid sulphate of potash	16 oz.
Bicarbonate of soda	20 ,,
Rice-flour	3 lbs.

See that the acid sulphate is free from iron, as a sample we examined contained a considerable trace of it, and this is apt to dull the colour of the bread. Egg-powder.—See January 17, 1891, page 96.

113/53. *Sedox.*—(1) True Tripoli, or Venetian tripoli, is a whitish-yellow or pale straw-coloured earth; the lighter the colour, the greater the value. There is also a Bohemian tripoli (terra melia), and there are varieties of tripoli (so-called) found at certain parts of the East coast of England, and by calcination of what is called church or curl stone in Staffordshire. Perhaps this will account for prices ranging from 6*d.* to 2*s.* 2*d.* per lb. (2) Non-greasy Metal-polishing Paste:—

Bohemian tripoli	1 lb.
Spanish whiting	1 ,,
Red oxide of iron (common)	8 oz.
Petroleum (burning-oil)	1 ,,

Thoroughly mix, and mass with—

Glycerine and Water (equal parts)	q.s.

The addition of some cheap essential oil is advisable to disguise it. If a red-coloured paste be not desired, then substitute rottenstone for the oxide of iron. A Non-greasy Polishing-fluid.—There is nothing better than a solution of oxalic acid in water. (3) A Cure for Warts, salicylic acid, collodion, and the stronger acids being objected to—Glacial acetic acid coloured with cochineal, solution of mercuric nitrate, butyr of antimony; any of these may be used. If it is the salicylic acid which is objectionable, a solution of perchloride of mercury in collodion has been recommended:—

Perchloride of mercury	gr. xvj.
Sulphuric ether	ʒij.
Collodion (flexile)	℥vj.

Dissolve the mercury in the ether, and add to the collodion.

117/64. *Dyspepsia.*—Papaïn-mixture (Alkaline):—

Papaïn	gr. xvj.
Sodæ bicarb.	ʒj.
Tr. calumb.	ʒiij.
,, card. co.	ʒij.
Glycerin...	ʒiv.
Aqua ad	℥iv.

M.

Dose: Two teaspoonfuls three or four times a day.

115/72. *Polish* (Liverpool).—Brass-polish, similar to sample:—

Tripoli (true)	1 lb.
Spanish whiting	1 ,,
Rottenstone or fine pumice-powder ..	8 oz.
Petroleum	2 ,,
Petroleum jelly	q.s. to make a soft paste

Disguise with some cheap perfume.

117/56. *J. C.* has prepared a Rhubarb Wine which he finds great difficulty in clarifying. Isinglass, rice-powder, pumice, and Spanish clay have all been tried without effect. The Spanish clay seemed to be acted upon by the wine. The best thing to use, and what is most commonly used by practical wine-makers, is freshly-burned gypsum. Add sufficient quantity (effervescence will not interfere with result), shake well up, stand for a week, and decant. This is also sometimes used by brewers, especially when their water is a soft one.

DISPENSING NOTES.

Correspondents should consult "The Art of Dispensing" in regard to dispensing difficulties. Difficulties not explained therein may be sent to the Editor, who invites a general expression of opinion upon the undermentioned topics.

Ergotine and Oxide of Silver Pills.

Ravenscroft has had this prescription to dispense; he wishes to know how best to do it.

Ergotini	gr. iv.
Argent. oxidi	gr. ¼
Micæ panis	q.s.

M. Ft. pil. tales 48.

Evaporate the ergotine in a water-bath, or, carefully, in a porcelain basin over the gas, to a pilular consistency, add 1 gr. compound tragacanth powder in place of crumb of bread q.s., then the oxide of silver; roll out quickly, and varnish or coat with gelatine.

What was Meant?

119/26. *E. H. S.* sends a copy of a prescription which had been dispensed elsewhere with some preparation of iron. He thinks the second substance mentioned is intended for chloroform, but asks the opinion of our readers.

Ac. hydrocyan. (Scheele's)	gtt. xij.
Tr. (or Fer.) chlorid. et carbon.	gtt. xxx.
Mist. camphoræ	℥iij.

M.

Sig.: A tablespoonful every second hour.

Has there not been a mistake in copying the prescription? Is not "Tr. chloroform. et morphinæ" meant?

[If chloroform were intended, it would be rather an awk-

ward mixture to dispense, mucilage of acacia or some similar emulsifying-agent being necessary to suspend the chloroform.]

LEGAL QUERIES.

Immediate information on pharmaco-legal matters is available in "Pharmacy and Poison Laws of the United Kingdom," Alpe's "Handy-book of Medicine-stamp Duty," and THE CHEMISTS' AND DRUGGISTS' DIARY, *page* 152 *et seq.*

115/29. *Anxious.* If malt vinegar is asked for, the liquid acetum, B.P., or one of a similar character must be supplied. According to the decisions we have published it is not legal to sell pyroligneous acid in any case for vinegar. It is the presence of empyreumatic bodies that determines whether a vinegar is made from malt or not.

118/57. *Clemo.*—You might be able to recover damages if you could prove that you had paid your premium in consequence of a misrepresentation; but as your apprenticeship seems to have commenced before the passing of the Pharmacy Act Amendment Act of 1890, we do not see how there could have been any such misrepresentation.

114/55. *W. G. B.*—The cost of conveying a house value 400*l.* in the absence of a special agreement is fixed at $1\frac{1}{2}$ per cent. by the Solicitors' Remuneration Act, 1881, and the rules thereunder. The vendor's and purchaser's solicitors' costs, therefore, for preparing the contract, deducing the title, and preparing and completing the conveyance, are respectively 6*l.* In addition to this, the stamp on the conveyance would be 2*l.* If the vendor's or the purchaser's solicitor negotiate the sale, there being no surveyor or auctioneer employed, they are respectively entitled to 4*l.* extra. The costs for transfer as a deed of gift would probably be more than the above charges, because they come under what is known as Schedule II.—that is, each attendance is charged for as 10*s.*, letters are 5*s.* each, drawing any documents 2*s.* a folio of seventy-two words, and perusing a document 1*s.* per folio. The stamp, however, would only be 10*s.* It would be impossible to tell exactly what would be the cost of a deed of gift, and it would be best for our correspondent to have an agreement with the solicitor employed, which the Act requires to be in writing and signed by the party to be bound; in fact, it would be better to be signed by both. This can be done by an exchange of letters. Either the vendor's or the purchaser's solicitors can refuse to be bound by the above scale of percentage, and charge under Schedule I., if he give notice in writing to his client before he commence the business, but this is very rarely done.

121/49. *Tr. Camph.*—It is not illegal for an unqualified person to dispense prescriptions in a private institution. Qualification is only required in Great Britain for selling, or for keeping open shop for selling, poisons.

121/32. *Esculapius.*—We cannot make trade-mark searches. These must be made personally at the Trade-marks' Office, Southampton Buildings, Holborn, a fee of 1*s.* per quarter-hour being charged.

121/47. *North Yorks* writes a lengthy letter complaining that the Pharmaceutical Society do not prosecute with sufficient vigour unqualified vendors of poison in his locality. "N. Y." says that some time since, he, with some others, wrote to the Society on this subject, and had a reply "implying that the onus falls upon the police or else a private individual." The Society would hardly have written this in reply to a complaint such as is made to us, as they know very well that they only can take proceedings against unqualified persons for selling poisons or keeping open shop for doing so. Let us have exact copies of the correspondence, so that we can judge whether your complaint is well founded or not. In reply to some further remarks, we may add that the position of drug-companies has been accurately defined, and there has been a very fair proportion of actions against their unqualified assistants for selling poisons.

123/48. *J. P.* says a wholesale house not having labelled cocaine hydrochlor. "Poison," he wrote to them. They replied, saying that, as the Pharmacopœia dose is 1 gr., they scarcely thought it could be classed as a poisonous vegetable alkaloid. "J. P." asks our opinion. We think it is a poisonous vegetable alkaloid, and should therefore be labelled "Poison," sold only (retail) by chemists, and registered when sold.

123/42. *W. P.*—The label renders the preparation liable to medicine-stamp duty. We do not know the writer of the post-card.

123/11. *Hop Bitters.*—The packets of herbs are not liable to stamp duty if they have not been subjected to any process of medication.

121/12. *Miles.*—For the Pharmaceutical Preliminary you must pass the examination provided in its entirety, or one of those which are accepted in lieu of it.

113/53. *Sadox.*—A Veterinary Surgeon, not a chemist, is Not Entitled to use the Title "Pharmacy," nor to keep and dispense poison, save for animals under his care. We question if the Society would prosecute for the title simply, so long as he did not "keep open shop for the sale of poisons."

122/43. Subscriber sends the following label:—"This preparation contains the ingredients of PAREGORIC except the opium which is so dangerous to children," and asks if it could be objected to for tinct. camph. co. sine opio to be sold by unqualified men? No; the label is legal enough if paregoric sine opio is wanted; but it is not legal for a vendor to sell the stuff referred to as paregoric without full explanation, and it is always a chance whether a magistrate would consider a label such as the above a proper explanation.

124/36. *Rockrose.*—If you dispense a poisonous medicine from an amateur prescription, and if a fatal result should ensue, you would have a fair chance of standing a trial for manslaughter. A judge would probably tell a jury that when a man keeps a chemist's shop he holds himself out to the public as competent, and the law requires of him that he should exercise reasonable skill and caution.

INFORMATION SUPPLIED.

108/74. Stencil-plates may be obtained from Messrs. Archbutt, 201 Westminster Bridge Road, London, from A. Hamilton, Anne Street, Glasgow, and the Leicester Stencil Company, Southgate Street, Leicester.

112/73. *Novice.*—Hogg's "Rodentia" is supplied by the sole agent, Mr. J. Sellars, 57 Farringdon Road, E.C.

Referring to reply to "Carboy" (109/45), *Turps* (123/47) writes:—"Turpentine will keep perfectly waterwhite in a cistern made of ordinary tin sheets. I have had such a cistern in use for ten years, and the only improvement I can suggest is a tap that can unscrew for cleaning."

INFORMATION WANTED.

The Editor invites, on behalf of inquiring subscribers, post-card replies to the following:—

117/38. *Carolus.*—The maker of Eucalyptera. A remedy for sleeplessness.

121/15. Agent for Austin's "Forest-flower" perfume.

121/26. Makers of cheap filter-blocks.

123/64. Makers of suppository-moulds.

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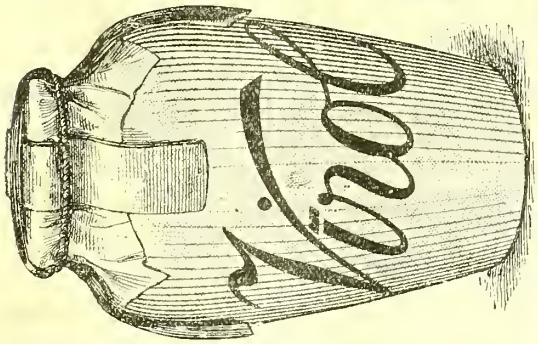

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1/9.. " Pâté	15/	2/9.. " Pills	24/	1 1½ Papier Fayard	6/9	4/ ..Racahout des Arabes	31/
6/6..Bay Rum	57/	4/6..Clin's Dragées Bromide Cam.	45/	2/3.. Ditto	13/6	4/6..Reynal's Bougies	38/
3/6.. Ditto	31/	5/ ..Eau de Botot (Genuine)	40/	2/3..Papier Fruneau	14/6	2/9..Ricord's Injection	24
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4/6..Blancard's Pills	32/	4/6..Elixir de Coca (Mariani)	48/	1/9.. " de Berthé	15/6	1/6..Star Paper	11/
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4/6..Bugeaud's Wine	36/	2/3..Granules Arsen. Acid	13/6	1 1½ " Ditto	9/	4/6..Veloutine (White, Pink, Oim.)	28/
3/6..Bully's Vinegar	30/	2/9.. " " Iron	14/5	1/6.. " de Nafé	13/6	3/6.. Ditto ditto	22
2/ .. Ditto	14/6	2/9.. " " Soda	15/4	1/9.. " Regnauld	14/6	2/9..Vichot's Trochisques	22
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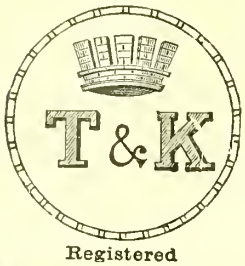

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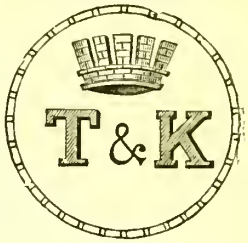

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N.B.—We guarantee all our Chloroforms to be PURE CHLOROFORM *answering all the tests of the British Pharmacopœia.*

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This is a special preparation, quite different from Spir. Chloroformi P.B., perfectly miscible with water, and always of the same strength

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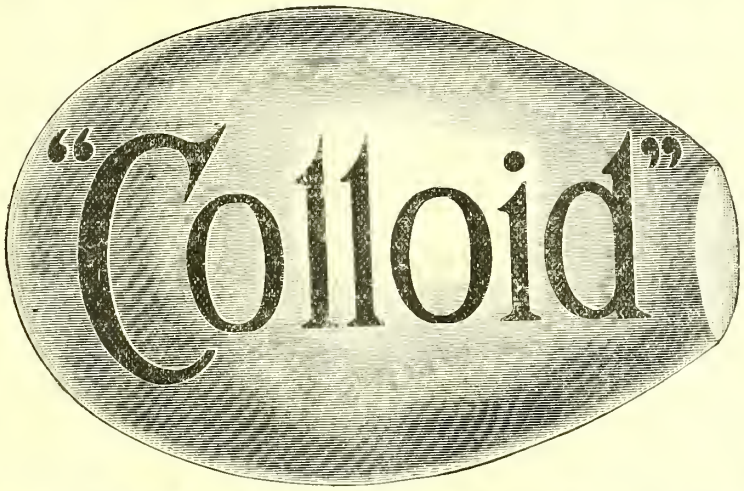

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ESTAB^D. 1793. INCORP^D. 1891.

Dr. J. COLLIS BROWNE'S

CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

IMPORTANT CAUTIONS.

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD, and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that "Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as deliberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital."

The VICE-CHANCELLOR also stated, "that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection."

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated, "that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor."

LORD JUSTICE JAMES, on appeal, stated in his judgment, "that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood."

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never used any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and other were produced in Court, stating that Dr. J. Collis Browne was the inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, Dr. J. Collis Browne's Chlorodyne, is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

Apothecaries' Hall,	London
Allen, Haubury & Co.,	"
Baiss Brothers,	"
Banks & Richards,	Birmingham
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Bell, John, & Co.,	"
Bourne & Taylor,	"
Corbyn & Co.,	"
Cox & Gould,	"
Curling & Co.,	"
Curtis & Co.,	"
Davy, M'Murdo & Co.	"
Dobbin, W., & Co., Limited,	Belfast
Drew, Barron & Co.,	London
Drew, B., & Alexander,	"
Dunn & Company,	"
Edwards, W.,	"
Evans, Gadd & Co.,	Exeter
Evans, Lescher & Webb,	London
Ferris & Co.,	Bristol
Foulger, S., & Son	London
Frazer & Green,	Glasgow
Gale & Co.,	London
Giles & Son,	Clifton
Goulding, Messrs.,	Cork
Gratton & Co.,	Belfast
Grimwade, Ridley,	London
Grindley & Son,	Chester
Hearon, Squire & Francis,	London
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Hopkins & Williams,	"
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Parsons & Richardson,	Leicester
Peake, Allen, & Co.,	Dublin
Raimes & Co.,	York
Raimes & Co.,	Edinburgh
Sang & Barker,	"
Sanger, J., & Sons,	London
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Southall & Co.,	Birmingham
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Tomlinson, Hayward & Co.,	Lincoln
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Rounded Corners.
Fig. 98, OVAL.
Fig. 202, OVAL.
Flat one Side.

Fig. 203, FLAT.
Round Ends.
Fig. 86, CHELTENHAM.
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Patent Stoppers.

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Fig. 97a & 98	9/3	10/9	10/9	12/-	12/-	18/-	18/-	21/6	27/-	Best, per gross.
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Fig. 202 ...	...	...	10/9	12/-	12/-	...	...	...	...	Best, ,,
Fig. 203 ...	...	10/9	10/9	12/-	12/-	18/-	18/-	21/6	27/-	Best, ,,
Fig. 86 ...	...	...	16/-	20/-	20/-	...	27/-	31/-	...	Best, ,,

PRICES IN CRATES OF 6 TO 8 GROSS.

CRATES FREE. NOT LESS THAN 1 GROSS OF A SIZE.

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Fig. 97a & 98	9/-	10/3	10/3	11/6	11/6	17/6	17/6	21/-	26/-	Best, per gross.
	7/3	8/6	8/6	10/-	10/-	13/3	14/6	20/-	25/6	2nd, ,,

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Readily soluble in water. It dissolves Uric Acid concretions twelve times more freely than Lithia Carbonate.

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This is a preferable analgesic having no toxic effects, nor does it interfere with the circulation of the blood, nor the heart, nor does it reduce the temperature below normal.

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War Office, Pall Mall, S.W
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BERDOE & CO.,

CHEMISTS' TRANSFER AGENTS & VALUERS,

30 JEWRY STREET, ALDGATE, E.C.

Established 1870.

NOTICE TO VENDORS.

Having been for the past 22 years solely engaged in the Sale, Purchase, and Valuation of Chemists' Businesses, we have, as Transfer Agents and Valuers, the largest experience of any in the Trade. Vendors placing their businesses in our hands for transfer may in all cases rely upon a speedy sale being effected without undue publicity. Terms forwarded post free on application. No sale, no charge.

NO CHARGE TO PURCHASERS.

1.—**GLOUCESTERSHIRE.**—Unopposed good-class Retail, Dispensing, and Prescribing Business; returns £550, full prices; excellent house, with garden; illness sole cause of leaving; price about £530.

2.—**SUFFOLK.**—Unopposed Retail and Prescribing Business; returns £650; net profit over £300, guaranteed; double front, well fitted; rent £30; good house, large garden; price £525.

3.—**YORKSHIRE.**—Light Retail and Prescribing Business; returns £500, under management; principal did £800; low rent; good house; valuation of stock and fixtures will be accepted.

4.—**EASTERN COUNTY.**—Unopposed Light Retail and Prescribing Business; returns over £1,000; very low rent; good house and garden; shop well fitted and stocked; price £400, or offer.

5.—**HANTS COAST.**—Retail and Prescribing Business; returns over £600, producing a net profit of over £300 yearly; low rent; good house; price £400; every investigation allowed.

6.—**BRISTOL (near).**—Retail, Dispensing, and Prescribing Business; same hands 49 years; returns £429 under management; net profit, nearly £200; rent £40, good house; price £250.

7.—**LONDON, N.W.**—Old-established Retail and Dispensing Business, with large sale of own proprietaries; returns £1,460; net profit £450; satisfactory reasons for selling; price £1,250 or offer.

8.—**LONDON, W.**—Retail and Prescribing Business; returns £600, very profitable; good shop, well stocked; comfortable house; price £500; £200 could remain; every investigation allowed.

9.—**CITY.**—First-class position, elegantly-fitted Pharmacy; under management neglected; principal could do £1,000 yearly; good prices obtained; price £450 or valuation.

10.—**LONDON, S.E.**—Main road; Retail and Prescribing Business; returns £6 per week under management; rent £40; good house and garden; shop is well fitted and stocked; price £170.

Berdoe & Co., 30 Jewry Street, Aldgate, E.C.

ANDROS & CO.,

Chemists' Transfer Agents & Valuers,

67 SHIP STREET, BRIGHTON,

Have received instructions to dispose of the following Genuine Businesses.

SURREY (Fol. 961).—Light Retail, Dispensing, and Prescribing Business; handsome shop, 8 rooms, and garden; established 28 years; rent £50; returns £400, which could be greatly increased; price £225.

BIRMINGHAM (Fol. 962).—Retail and Dispensing Business; convenient house; very low rent; returns £300; price only £60, of which half can remain; very suitable for beginner.

NORTH-WEST OF ENGLAND.—Old-established Retail and Prescribing Business; large and very convenient house, low rent, nearly cleared by letting; exceptional opportunity; price £200; stock would be reduced to suit purchaser.

LONDON, S.W.—High-class Chemist's and Scientific Business; old-established, same hands 14 years; handsome Pharmacy; 7-roomed house, with large garden; moderate rent, on lease; returns about £800; price £600; satisfactory reasons for disposal.

Messrs. Andros & Co., having numerous applications for Businesses in all parts, will be pleased to receive particulars from intending vendors.

NO CHARGE WHATEVER TO PURCHASERS.

CROCKER & CO.

Sole Proprietors—

Mr. William Judd and Mr. Alfred Manners,

Trade Valuers, Transfer Agents, and Accountants,

15 WALBROOK, E.C.

Having numerous inquiries for good-class Country Businesses they invite communications from intending vendors.

NO CHARGE IS MADE UNLESS A SALE IS EFFECTED.

CHESHIRE.—An old-established Retail and Dispensing Business, in best part of busy market town; returns £1,030; price £800, or valuation of stock and fixtures. This is well worth the attention of a pushing man, as there is great scope for improvement.

DEVONSHIRE.—Good-class Retail and Dispensing trade; returns £1,400; price £1,000; well recommended.

HERTS.—Old-established good-class Family Business; returns nearly £650, and capable of great increase; good house and garden; price £450.

SOUTH COAST.—A first-class Dispensing and Retail Business, with handsome Pharmacy; situated in the best position of an important health resort; giving a net profit of £600 a year; price, £1,850.

NO CHARGE TO PURCHASERS.

BUSINESSES FOR DISPOSAL.

3s. 6d. for 50 words; 6d. for every 10 words beyond.

TORQUAY (Devon).—County Drug Stores, in principal thoroughfare; good fittings and well stocked. Apply to Milne, 4 Fleet Street, Torquay.

IMMEDIATE Disposal, Yorkshire, Light Retail, Prescribing, and Dispensing; returns average £18 weekly; price £450 cash. Apply, "Cascara," Evans, Sons & Co., Liverpool.

A GENUINE concern in South Wales for sale, or exchange for one in London suburbs; turnover £500 a year; price £250. Write, 37/30, Office of The Chemist and Druggist, 42 Cannon Street, E.C.

LINCOLNSHIRE.—Old-established Retail in pleasant market town; returns £1,000, with good agency; excellent residence; price £450, or valuation. F. J. Brett, Valuer, 60 St. Stephen's Road, Leicester.

DEVON.—Mixed Business, Chemist and Druggist combined with Wine and Spirit, well stocked, in a country town; no opposition; good house and garden; owner retiring. Apply, Messrs. Evans, Gadd & Co., Fore Street, Exeter.

YORKSHIRE COAST.—First-class Dispensing Business; returning over £2,000, with full prices; net profit £700; price £1,850; references exchanged; no agents. "Tabloid," Office of The Chemist and Druggist, 42 Cannon Street, E.C.

£350.—London, N.—Retail and Dispensing Business; well stocked; good house and shop; rent £45 on lease; returns under management over £500 per annum; part of purchase-money can remain. Address, "Pharmacist," 42 Stroud Green Road, Finsbury Park, N.

STOCK and Fixtures at valuation; manufacturing town in the Midlands, Prescribing and Dental Drug Business for disposal; established 1814; present proprietor has been in possession 22 years, and now retiring; premises can be had on lease at low rental. For particulars apply, J. Kendrick, Redditch.

FOR immediate disposal, Business in main thoroughfare of large town on South Coast; population 18,000; returns £11 weekly; owner, having another engagement, will sell for £450; intending purchasers are invited to thoroughly inspect the business. E. F., Wright, Layman & Umney, 48 Southwark Street, S.E.

FOR disposal (if required, at once), Retail and Dispensing Business; Dentistry could be profitably taken up; in a market town in the West of England; returns £400 per annum under management; good house, at a low rental; long lease. Address, 21/19, Office of The Chemist and Druggist, 42 Cannon Street, E.C.

MIDLANDS.—Thoroughly *bonâ-fide* old-established Light Retail, Prescribing, and Dispensing; returns between £600 and £700, yielding nearly half profit; to an immediate cash purchaser will be sold cheap, or a short partnership would be entertained; satisfactory reasons for disposal. "Busy," c/o Messrs. Wyleys (Limited), Coventry.

ESSEX.—Very old-established Retail, Dispensing, and Prescribing Business; good agricultural and residential neighbourhood, easy of access to London; returns £1,500, net profit nearly £450; good house, large garden, warehouse, stable; price £1,050, or by valuation if wished. "Zymine," Office of The Chemist and Druggist, 42 Cannon Street, E.C.

EXCEPTIONAL opportunity of acquiring a thoroughly genuine Retail and Dispensing Business; main road position, London, S.W.; returns £610; capable of considerable increase; well stocked and fitted; small comfortable house; owner, having taken larger concern, is open to accept offer; well worth attention. Write, Kino, 55 College Street, Chelsea, S.W.

SITUATIONS OPEN—Cont.

WANTED, Junior, aged 22, for brisk business. Apply, personally or by letter, Portway & Co., 225 Jamaica Road, S.E.

TORQUAY.—An Assistant wanted as Dispenser. Apply at once, with carte and full particulars, to Riches & Toulin, Torquay.

WANTED, a qualified Assistant: salary £60 (indoors). Apply, with photo and references, to the Hall Drug Co. (Limited), Skegness.

MESSRS. HEATH & CO., Homœopathic Chemists, require an indoor Assistant. Apply, stating age, salary, &c., 114 Ebury Street, S.W.

A RELIABLE Assistant; indoors; must be neat and energetic; abstainer preferred; weekly half-holiday. Send photo, with fullest particulars, W. T. Oldham & Son, Chemists and Opticians, Market Place, Wisbech, Cambs.

ASSISTANT, not under 22 years of age; must be accustomed to a Mixed business. Apply, with usual particulars, stating salary required (indoors) and enclosing photo, to Arthur Carlton, Chemist and Druggist, Peterborough.

CHEMIST and Postal Assistants.—One who thoroughly understands Postal duties, with S. N., and competent to take sole charge when required, whose character will bear the strictest investigation. J. Gater, Chemist, P.O., Victoria Road, Peckham, S.E.

SOON, an active Assistant, about 24, qualified, to develop and manage a Branch; comfortable rooms; character must bear strict investigation. Send photo, stating age, height, experience, and references, or apply personally, Hall, 509 Falham Road, S.W.

WANTED, by October 1, an indoor qualified Assistant, aged about 23 years, to take charge of a Doctor's Retail and do the Dispensing; must be quick and accurate, and give good references. Apply to M.D., 606 Harrow Road, W.; or personally, after 6 o'clock P.M.

SITUATIONS WANTED.

1s. for 12 words; 6d. for every 6 words beyond.

ASSISTANT; qualified; aged 24; disengaged. W. Owen, Glanbeuno, Dwyran, Anglesea.

JUNIOR; aged 22: time for study; good reference. Evans, 33 Liverpool Road, Islington.

JUNIOR; 21; 4 years' experience; indoors preferred; good references. 7 East Road, Lancaster.

ASSISTANT; 23; 10 years' experience; outdoors preferred. G., 1 Rock Road, Finsbury Park.

MANAGER of Branch, or Counterman; qualified. "Trans," 22 High Street, West Norwood.

LOCUM; experienced; £2 weekly and return fare. "Locum," 47 Albert Road, Southsea.

PART-TIME, any description; disengaged 6 P.M. Williams, 2 Eversholt Street, N.W.

JUNIOR; 22; well up in Dispensing; disengaged. "Statim, 99 Beaufort Street, S.W.

ASSISTANT; 27; 3½ years last situation; London preferred. 26 Landor Road, Stockwell.

DISPENSER to Surgeon, or care of Surgeon's Retail; experienced; first-class testimonials. J. T., 110 Devonport Road, Shepherd's Bush, W.

MANAGER or Senior; qualified; married; aged 40; thoroughly experienced; disengaged October 14. M. D., 88 Beeches Road, West Bromwich.

WHOLESALE or Retail.—Assistant, thoroughly experienced in both, could manage branch; highest references. "Counter," Kennington Cross Post Office.

JUNIOR; disengaged; aged 20; height 6 ft.; 3 years' experience; reference; good Dispenser. Wilson, Bedford Villa, Walton Breck Road, Anfield, Liverpool.

DISPENSER; 23; experienced; passed half exam. L.R.C.S. (lady). Address, "Frances," Address, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

DISPENSER to Surgeon; well up in the ordinary routine of Dispensing practice. 39/30, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LOCUM-TENENS or permanency; competent take charge; total abstainer; gentlemanly; aged 24; disengaged; excellent references. E., 6 Brewer Street, Pimlico.

TEMPORARY or Permanent.—Mr. Newstead is open to engagement; unqualified, but highly recommended by past employers. 8 Tenison Street, York Road, Lambeth.

ASSISTANT; competent; accustomed to good-class Retail and Dispensing; aged 23; height 5 ft. 10 in.; Brighton or London preferred. P., 30 Harbour Street, Ramsgate.

BRANCH Manager; Minor qualification; married. C. H. Fentiman, 233 East India Road, Poplar.

SITUATION wanted as Light Porter; good references. Norfolk, 105 High Street, Colchester.

QUALIFIED; 25; City or West-end and outdoors preferred. Avondale, Salham Crescent, Paddington.

WANTED, in London, by good Dispenser, part-time post. Daniels, Springfield Road, Leicester.

AS Improver: 18; 3 years' experience. Mordecai Jefferson, 53 Girlington Road, Bradford, Yorkshire.

LOCUM-TENENS; best London experience; Major. "Statim," 25 High Street, Hemel Hempstead.

LOCUM-TENENS; disengaged; aged 27; good Extractor. 2 Horton Street, Lewisham, S.E.

ASSISTANT; 23; Minor; highest references; disengaged. S. W. Kastor, 37 Swaine Street, Bradford.

MANAGER or Locum-tenens; qualified; experienced; good references. Aves, Castle Gate, Newark.

ASSISTANT; 24; outdoors; excellent reference; Birmingham. 36 Great Russell Street, Birmingham.

QUALIFIED; 25; London experience; permanent. "Chemist," 10 William Street, City Road, Bristol.

OUTDOOR Assistant or Branch Manager; aged 27; good Extractor. 80 Cranbrook Road, St. John's, S.E.

32s. weekly; Manager or Assistant; qualified; 50; married. 31 Orchard Street, Kidderminster.

MANAGER, Assistant, Dispenser; qualified; first-class Dispenser. "Drugs," 26 Dartmouth Road, Forest Hill, S.E.

TEMPORARY; varied experience; steady, reliable; registered; reference. "Chemist," 123 Copenhagen Street, N.

WANTED, situation in Wholesale; Retail experience; excellent education. "Inquirer," 4 Spurriergate, York.

MANAGER or Senior; qualified; London; outdoors preferred; good references; aged 27. "Statim," 102 Old Kent Road.

AS Manager in a good business; aged 27; qualified; good references and experience. "Chemist," 485 King's Road, Chelsea.

ASSISTANT or Dispenser; 27; 5 ft. 7½ in.; 3 years in last situation; outdoors preferred. "Minor," 76 High Street, Barry.

AS Dispenser and Bookkeeper; aged 23; experienced. 38/6, Office of the CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LOCUM-TENENS; qualified; long experience; disengaged September 30. Present address, 4 The Circle, Tredegar, Monmouthshire.

JUNIOR; 21; excellent experience; London preferred. 30/22, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ASSISTANT with time for study, in London; experienced. 38/24, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ASSISTANT; 27; 13 years' experience of first-class business; 5 years Manager. "Camphor," c/o Ayrton & Saunders, Liverpool.

DISPENSER to Chemist or Surgeon; 21; disengaged; 6 years' experience; part-time. "Analysis," 190A Holloway Road, N.

QUALIFIED Assistant; aged 30; first-class references; London and country experience. X. Y. Z., 75 Queen's Road, Clifton.

LOCUM-TENENS; few weeks; aged 35; first-class Dispenser. 39/1, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ASSISTANT; 22; unqualified; first-class London experience; abroad preferred; disengaged. Ellis, 210 Euston Road, London, N.W.

WHOLESALE; Wet Counter preferred; long experience. "Radix," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

EVENING engagement; qualified; within easy reach of Camden Town; indoors preferred. T. S. G., 4 Acre Place, Stoke, Devonport.

ASSISTANT, or manage branch; outdoors; permanency; aged 26. 36/26, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

ASSISTANT; 23; Stores; good Counterman; varied experience. 267/22, Office of the CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

JUNIOR; 20½; good experience; disengaged about October 20; London preferred. Address, "Pixides," 81 George Street, Luton, Beds.

FRENCH and German; qualified Assistant, with many years continental experience. "Apotheker," 221 Upper Brook Street, Manchester.

SITUATION as Manager (Branch or otherwise; qualified; aged 32; town or country; highest testimonials from well-known houses; have small capital at command. I. W., 16 St. Mark's Road, Lower Sydenham.

PUPIL.—A medical student, aged 18, desirous of acquiring thorough knowledge of Dispensing, &c., wishes to go for a year or two with a first-class Chemist, in a good provincial town (seaside preferred), who could offer him a comfortable home. Full particulars, including terms, to Y.C., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SITUATIONS OPEN—Cont.

WANTED, energetic Assistant (single) for Retail; must be a good compounder. Apply, giving full particulars, enclose c.-d.-v., and state salary expected, Kiloh & Co. (Limited), Cork.

WANTED, at once, a competent Assistant to take charge; a tooth extractor preferred; indoors. Apply, personally or by letter, to Reece & Co., 53 Great Marylebone Street, London, W.

WANTED, a competent Chemist, holding Major or Minor qualifications, for a position of trust. Apply J. D. T. & Son (Limited), Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MINOR.—Wanted, a young man with Minor qualification for a situation in South Africa, with a knowledge of Photography. Apply, with full particulars, to C., 14 Bunhill Row, London, E.C.

WANTED, Dispenser (Locum), for first two weeks in October; must be neat, accurate, and quick. Apply, stating age, recent reference, and salary expected, Dr. Croke, Sunnyside, Beverley, Yorks.

BUYING Agents, with connection, wanted in all leading towns to sell Liquid Glue and Metal Polish. State age and full particulars to D 27, c/o C. Birchall, Advertisement Contractor, Liverpool.

OCTOBER.—Junior, for Light Retail and Dispensing; indoors. Apply, with full particulars as to height, salary, and enclose portrait, to Harold Mitchell, The Merton Pharmacy, South Wimbledon.

MANCHESTER ROYAL INFIRMARY.—Junior Assistant Dispenser; Minor qualification; not over 30 years of age; salary £85 per annum; hours 8.30 to 6. Apply to General Superintendent.

WANTED, an energetic Junior, about 20, for Cash business; must be quick, reliable, and obliging. Apply, stating age, height, experience, references, and salary required (outdoor), enclose photo, to Preston Drug Company (Limited), 1 Fox Street, Preston, Lancs.

IMMEDIATELY, active and reliable Assistant; about 24. State age, height, salary required (outdoor), and give particulars of experience, enclosing photo. Headland & Co., North Street, Brighton.

QUALIFIED Dispenser, of good experience (indoors), age about 25; must write a good hand. Apply personally (not by letter), to R. A. Potts, 62 South Audley Street, Grosvenor Square, London, W.

WANTED, a good Junior Assistant, about 21 or 22 years of age; comfortable home; must have good references. Apply, with photo, if possible, to E. Pratt, Pharmacist, High Cross, Barnstaple.

WANTED, an Assistant, about 26, accustomed to a Dispensing, Prescribing, and Light Retail business; salary £50. Apply, with particulars and references to J. Woodcock, 75 Shaw Street, Liverpool.

BIARRITZ, FRANCE.—Required, a Junior Assistant, to board and live in house; fine opening for learning language and French pharmacy; fare out paid. Address, Dr. Heddy, 40 James Street, Oxford.

JUNIOR wanted at once; indoors; industrious, obliging, and competent man, who requires 2 or 3 hours daily for lectures. Apply personally, or send carte with full particulars, to Baubury, 390 Walworth Road, S.E.

SENIOR Assistant (qualified), with good experience and address; liberal salary to a suitable man; indoors. Apply, with full particulars and photo, "Senior," c/o Messrs. Hearon, Squire & Francis, 38 Southwark Street, S.E.

QUALIFIED Assistant wanted, for Provincial town; quick, pushing business; short hours, and no Sunday duty. Apply, giving age, references, and salary, to 34/17, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, for Sheffield, qualified Assistant, with view of promotion to Manager if competent; must be young, active, and thoroughly trustworthy. State age, references, and salary required (outdoors), to Boots (Limited), Nottingham.

WANTED, an Assistant for a Mixed Country Retail in North of England; single; outdoors; salary 26s. week. Apply, stating particulars, references, &c., to "Chemist," c/o Messrs. Ismay & Sons, Wholesale Druggists, Newcastle-on-Tyne.

TRAVELLER.—Wanted, an experienced and trustworthy man to call on chemists and medicine-dealers to introduce a proprietary article. Salary with commission. Write, with references, to K. D., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

RELIABLE, qualified Manager, age not under 35, for Retail and Shipping business; hours 8.30 to 7, except Saturdays; please state salary (outdoors), experience, and last reference; applications not answered in 3 days declined. F. Earle, 22 Market Place, Hull.

WINDSOR.—C. J. L. Russell, Pharmaceutical Chemist, has a vacancy for a well-educated gentlemanly young man as Improver or Junior Assistant; one who has at least passed the Preliminary examination preferred; and no salary offered under a 3 years' experience.

WANTED, an energetic Assistant (indoors) for Light Retail business; must be accustomed to good-class trade. State age, height, salary required, how long in last situation; also enclose carte (which shall be returned); hours of business moderate. Morgan, Chemist, Southend-on-Sea.

JUNIOR Assistant required for Dispensing and Retail in suburban business; abstainer preferred; must produce unexceptionable references as to character and ability; time for study if required. Full particulars (if by letter with photo) to Phillips, 193 Knight's Hill, West Norwood.

IMMEDIATELY, a qualified or registered Man to manage branch; used to General Retail, Prescribing, and Extracting; must be sober, honest, and trustworthy; indoors or out, indoors preferred; permanency for good man. Apply, with full particulars, to C. H. Griffiths, Chemist, Openshaw.

FOR the East.—First-class Assistant, qualified, with good all-round experience, capable of performing simple analyses and experienced in Aërated-water making, for vacancy in large pharmacy in the East; liberal terms for a suitable man. By letter only to Dakin Brothers, 87A Leadenhall Street, E.C.

AN Assistant, seeking a permanency, about 23 (indoors), for a good-class Retail and Dispensing business; capable of managing during temporary absence of principal; must be well recommended. Apply, with full particulars, enclosing carte (to be returned), Longtoft, Chemist and Dentist, East Molesey, Surrey.

IMPROVER, Junior, or Turnover, for a select Retail and Dispensing business; state age, salary, and height; also enclose photo. A vacancy for an Apprentice; low premium. Frederick James Lea, Chemist and Dentist (by Diploma), also Local Secretary Pharmaceutical Society G. B., Tontine Street, Folkestone.

TO Chemists' Assistants and Others.—A Dental Surgeon (L.D.S. Eng.) has several vacancies for gentlemen desiring to learn practical operative Dentistry in all its branches, at his dispensary, where over 2,500 cases are treated annually. Coaching would also be undertaken. Apply, Robert Levett, 219 Albany Street, N.W.

OUTDOORS.—Junior Assistant wanted in a good-class Dispensing business where Senior is employed; comfortable hours; must be gentlemanly, intelligent, diligent, and have had experience in Dispensing; good character, and fair knowledge of subjects for Minor necessary. Full particulars to "Upsilon," c/o Evans, Gadd & Co., Exeter.

A COMPETENT Assistant, not under 23, single, of good address (outdoors), for a good-class Country town business; not necessarily qualified if otherwise experienced; must be well recommended as to character; hours moderate; no Sunday duty. Send carte, with full particulars, to Samuel Goss, Pharmaceutical Chemist, Barnstaple.

QUALIFIED Assistant under 30 (recently passed Minor not objected to); partially outdoors; hours 10 to 9.15; Thursdays 2, Saturdays 10.30; no Bank Holiday or Sunday duty; one desiring permanency preferred; personal application desirable (before 2 P.M.). Empire Drug Co. (Limited), 258A Mare street, opposite the New Town Hall, Hackney, N.E.

A QUALIFIED, thoroughly reliable, honest, and straightforward man as Manager, in a Mixed Dispensing and Light Retail; married, with not more than 1 child; preference given to abstainer; 18 miles from London in healthy country town. Apply, with full particulars and references, which must be undeniable, to H. J. T., c/o Barron, Harveys & Co., Giltspur Street, E.C.

AN Assistant for good Country Retail business; hours 8 to 8; Thursdays 8 to 2; Saturdays 8 to 10.30; no Sunday duties; comfortable home; time for study if required. State age, height, salary required, references, &c.; enclose photo (to be returned), W. Wilkerson, Victoria House, Rushden, Northamptonshire.

EXPERIENCED Junior Assistant, not under 21, required latter part of October; outdoors; single-handed; accustomed to good-class Retail and Dispensing; good personal character indispensable. Apply, with references and photo (to be returned), stating age, height, and salary required, to R. Hayton Davis, Pharmacist, High Harrogate.

OCTOBER 2.—Good Counterman and Salesman, qualified preferred, about 23, indoors, for West-end Drug and Dispensing Store; must be well recommended by last employer. Apply, first instance, stating fullest particulars, enclosing carte, to H., Messrs. Hodgkinson & Co., 101 Whitecross Street, E.C. Also, end of October, vacancy for Stockkeeper; must have some experience.

BRITISH GUIANA.—Assistant wanted immediately, single, must be a good Dispenser, and preference given to one accustomed to Country trade; Minor qualification; aged about 25; salary, 1st year, £70, 2nd year, £80, 3rd year, £90, with board and lodging; first-class passage paid out. Must be able to take entire charge during principal's absence; to a hard-working steady man, third year's salary after first year. Apply, by letter, in first instance, to D. Baird & Co., 57 Basinghall Street, E.C.

INDIA.—At once, a good, experienced Assistant holding the Major or Minor qualification; Scotchman preferred; must be well up in Dispensing and all other branches of a Chemist's business; those with a knowledge of Surgical Instruments, Photographic, and Scientific Apparatus preferred; aged about 25; 4 years' agreement; salary 1st year, 200 rupees per month; second year, 250 rupees; third year, 275 rupees; fourth year, 300 rupees; second-class passage paid out; candidates must hold undeniable references. Apply to "S.S. India," Messrs. Evans, Lescher & Webb, 60 Bartholomew Close, London, E.C.

BUSINESSES FOR DISPOSAL—Cont.

BARGAIN.—For sale, handsome Fixtures and Furniture of the late Thos. Wilson, Holloway; 2 12-ft. counters, 1 dispensing-screen, pair window-enclosures (cathedral glass). Address, Furnell-Wilson, 420 Holloway Road, N.

£200.—An exceptional opportunity of acquiring a thoroughly genuine Business cheap; doing nearly £500; corner shop, in main thoroughfare; good reasons for disposal. Apply, 27/31, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

HOME County, 20 miles from London; an old-established Family and Dispensing Business in pleasant little town; returns £650; price £450; old-fashioned Pharmacy with nice house and garden. Apply, "Spero," c/o Messrs. Edwards & Son, 157 Queen Victoria Street, London, E.C.

WEST OF ENGLAND.—Central position, market town; an old-established Mixed Drug Business; returns about £1,400; several proprietary articles, one in considerable demand, wholesale and retail; handsome double-fronted shop, and large dwelling. Address, F., 3 Torrington Square, London, W.C.

HERBAL Business for disposal; main thoroughfare; double-fronted, cased-in windows; lamp; good stock; good trade, could be increased; convenient house; 60 feet of garden; low rent; illness cause of leaving; no reasonable offer will be refused. M. Lavere, Herbal Dispensary, North Cross Road, East Dulwich.

£400 (part can remain at 4 per cent.); splendid chance for an energetic bachelor; Dispensing and Light Retail, in principal thoroughfare of fashionable South Coast town; 1,500 new prescriptions dispensed last year; under management; splendid opening for Dentistry; extractions now nearly pay rent. B., c/o Wells, Castle Road, Hastings.

£420 CASH; East Kent, near popular seaside resort; a well-established small Country Business, with Stationery and Post Office; growing neighbourhood; no heavy trade; prominent corner shop, pleasant situation, bright and healthy; comfortable house (six rooms), with private entrance. Particulars and full inspection to genuine buyer. Address, "Vendor," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

NORTHERN Heights of London.—A handsomely-fitted and well-stocked Pharmacy, in charming district, which is rapidly improving; stands without opposition, and bound to grow into a large trade; good house, stabling, and garden; splendid opportunity for young man just entering business; price £375. "Calumba, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

GENUINE old-established West-end Chemist and Cash Drug Stores for immediate sale; cash price £2,600; yielded a net profit of £625 last year; any Chemist may have particulars on receipt of reliable references; rare opportunity for sound investment; writers out of curiosity waste their stamps. Apply, by letter only, to A. Smith, 47 Westmacott Street, Camberwell, London.

THE COMPANIES ACTS, 1862 TO 1890.

Re The North Birmingham Drug Company (Limited).

FOR Sale by Private Treaty, the Stock-in-Trade of a Drug and Drysalters' Business, together with the Fixtures and Fittings, at No. 165 Summer Lane, Birmingham. The premises are large and convenient for doing an extensive trade. For further particulars, apply to Luke J. Sharp, Official Receiver and Provisional Liquidator, 23 Colmore Row, Birmingham.

APPRENTICESHIPS.

MR. F. WELLINGTON has a vacancy for a gentlemanly youth as an Apprentice; premium required. An Improver or Turnover would be treated with. The Parade, Taunton.

WANTED, to Apprentice youth, aged 17, to a Chemist and Grocer's good country Business. Address, stating premium, 38/30, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

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WANTED, at once, in South of England, genuine Dispensing and Light Retail Business, where part of money may remain at interest; returning from £800 to £900 per annum; must bear strictest investigation; or Managership with view to purchase would be entertained. "Chemicus," c/o Wyleys, (Limited), Coventry.

A RELIABLE Retail and Dispensing Business in the Midlands or Eastern counties, returning from £800 to £1,200 a year, or a smaller one, if with prospect of increase; no objection to a partnership, if with view to ultimate succession. Send full particulars, in confidence, to Mr. W. Benton, 9 Vaughan Road, West Ham, Essex.

SITUATIONS OPEN.

WANTED, outdoor Junior, in mixed Light business. Apply, E. Davis, Chemist, Newport, Mon.

WANTED a Junior, about 21 (outdoors), for Mixed Retail; send photo. Apply, Gibson, Hogg & Co., Burton-on-Trent.

GRIMBLE & KENT, Chemists, Boston, require an active young man as outdoor Assistant. Apply, with full particulars, enclosing photo.

AN intelligent young man as Bookkeeper; must write a good hand; indoors. Please send references, age, &c., to Mr. Gurnell, Chemist, Ryde.

IMPROVER or Junior, in Light Country Retail business; outdoors. State age, salary required, and enclose photo, to Moore, Chemist, Kettering.

PART-TIME.—Immediately, a smart Junior, about 22 (outdoors), for West-end Dispensing business. W. X., c/o Messrs. Maw, 7 Aldersgate Street, E.C.

IMMEDIATELY.—Messrs. Fisher & Sons, Ramsgate, desire to engage a fully-qualified Assistant; indoors. Apply, stating age, salary required, and references.

WANTED.—Sundries department of a wholesale house; Manager wanted; must be thoroughly experienced. Apply to 17/17, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

OUTDOOR Assistant, immediately, between 20 and 24. Send full particulars, with photo, to "Statim," c/o Barron, Harveys & Co., Giltspur Street, London, E.C.

JUNIOR wanted at once; indoors; Light Retail and Dispensing for surgeon. Apply, with particulars and salary, Dr. Oldfield, 174A Boysou Road, Walworth, S.E.

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WANTED, qualified Assistant, shipping trade; hours 8.30 A.M. to 7 P.M., Saturdays 1 o'clock P.M. Apply, 123/32, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

IMMEDIATE; Junior Assistant; indoors; about 21; accustomed to brisk Retail business. Apply, personally if convenient, between 10.30 and 1 P.M., or by letter, with full particulars, enclosing carte (to be returned), to Mr. Durant, 137 Queen's Crescent, London, N.W.

WANTED, an energetic, thoroughly trustworthy Manager (qualified); one who is accustomed to a Mixed Country Drug business; please state salary required; permanency; in Cambridgeshire. Apply, 124/5, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

DUNDEE ROYAL INFIRMARY.—Non-resident Dispenser wanted; salary £80; candidates must be qualified under the Pharmacy Act. Applications, with testimonials, to be lodged with the Secretary, D. Gordon Stewart, Solicitor, Dundee, against the 27th current.

A SHARP Junior Assistant wanted, for Mixed Country business, by September 29; aged about 21; indoors; comfortable home. Apply, stating age, height, reference, salary required, enclosing photo (to be returned), to W. J. Brown, c/o Mr. Fletcher, Chemist, Totton, Hants.

WANTED, an Assistant, indoors, about 23, for a Light Retail Cash business: one who can Prescribe and Extract Teeth preferred; salary £40. Apply, with usual particulars, enclosing carte-de-visite (which will be returned), to W. Wootton, Chemist, 33 Liverpool Road, Islington, London, N.

HEALTHY Watering-place; Junior, for Light Retail and Dispensing business; must be active and obliging, and of cleanly habits; preference to Extractor; time for study; state salary and usual particulars, also send photo; applications not answered in 3 days courteously declined. Jackson, Church Street Pharmacy, Blackpool.

SITUATIONS WANTED—Cont.

ENGAGEMENT by the day, week, or month; qualified; disengaged. A. B., 69 Adolphus Street, New Cross, London.

DISPENSER or Locum-Tenens. A.B., 13 Arthur Street, Gloucester.

JUNIOR desires engagement; part-time; outdoor; London experience; A. E. Devereux, 10 Westminster Bridge Road, S.E.

LOCUM-TENENS or Part-time; 26; reliable; disengaged. "Dispenser," 61 Doddington Grove, Kennington, S.E.

FRENCH Assistant, speaking English; highest references; 16 years' experience; without salary. Maupas, 21 Woburn Place, Russell Square.

ASSISTANT or Dispenser; 26; experienced Prescriber and Extractor; excellent references; disengaged. "Dispenser," 5 Lyme Street, Camden Town.

AS temporary Manager or Assistant; many years' experience in London and country; first-class references; disengaged. T. B. 54 Weltje Road, Hamersmith, W.

FRANCIS & CO., Chemists, Wrexham, N. Wales, can recommend their Junior Assistant; aged 25; good Counterman and Prescriber. Particulars on application.

MANAGEMENT wanted, with view to purchase business on easy terms; aged 35; qualified. "Frame," Office of THE CHEMIST AND DRUGGIST 42 Cannon Street, E.C.

ASSISTANT or Dispenser; disengaged October 18; varied experience; outdoors; North preferred. "Theta," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MANAGER or otherwise; qualified; successful as Branch Manager; over 20 years' good and varied experience; temporary or permanent. W. S. J., Chemist, Minster, Thanet.

PART-TIME disengaged.—Pharmaceutical Chemist (24), experience in Wholesale and Retail, wants employment, evenings excepted. Reynolds, 99 Southampton Row, W.C.

DRUG and Store Trade.—Situation wanted; aged 24; over 3½ years in last place; could manage branch. "Vinolia," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E C.

MANAGER or Assistant, with view to succession, in country; first-class Scotch experience and reference. 37/14, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

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ASSISTANT; competent; 30; 12 years' varied town experience, City, West-end, Store; Dispensing, Retail, Prescribing; town or country. "Kino," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

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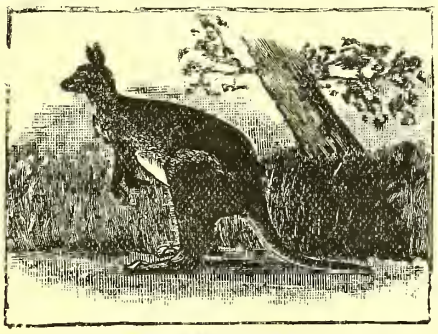
25-lb. Tins.  **25-lb. Tins.**

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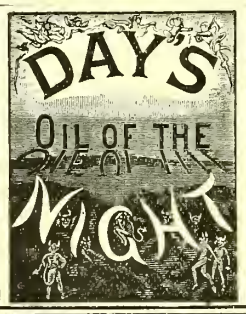

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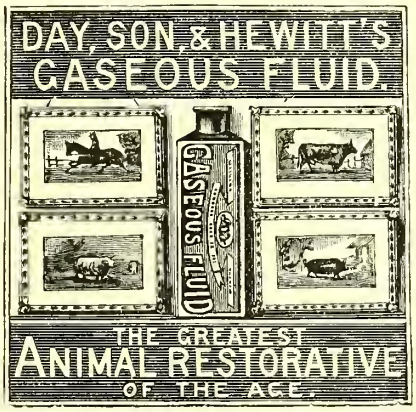

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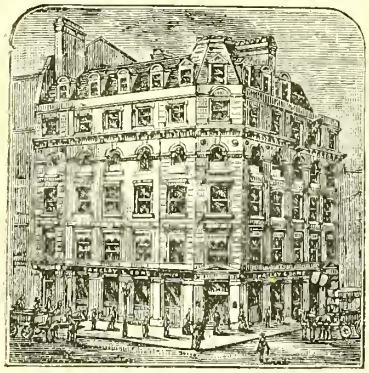

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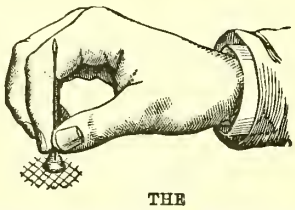

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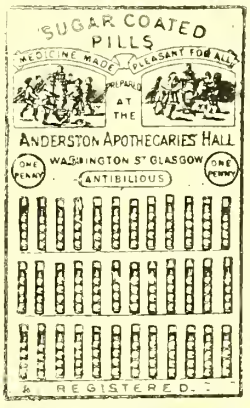

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Aromatic Cachous, Chlorate of Potash Pellets and other varieties put up as above at same price.

AGENTS WANTED.—APPLY AT THE
Anderston Apothecaries' Hall, Washington St., GLASGOW.
Telegraphic Address—"Lilliputian Glasgow."

THE WANT OF THE DAY!

NO MORE SOFT LINEN WHEN STARCHED.

Used in the Royal Laundries.

Should be used in Every House.

The Greatest Boon ever offered to the Laundress for mparting an IVORY-FINISH to Starched Linen, Laces, &c. It does not stick to spider-web-like materials.

REGISTERED No. 40,376.

Once Tried, Always Wanted.

Makes Old Linen like New.

From the Chief Laundress to H.R.H. the Prince of Wales:—West Newton, near Lynn, Norfolk, Aug. 29, 1879. SIR,—Having tried your "STARCH GLOSS," I certainly think it a great improvement—far superior to any I have tried. Yours truly,
To Mr. CRITCHLEY. E. ELDER.

Sold by Chemists and Druggists, Grocers, Oilmen, &c., in Packets at 1d., 3d., 6d., and 1s. each.

PREPARED ONLY BY
T. CRITCHLEY, CHEMIST AND WHOLESALE DRUGGIST, BLACKBURN.
LONDON DEPOT—2 BEECH STREET, E.C.

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ATKINSON & BARKER'S
ROYAL INFANTS' PRESERVATIVE.

Established by 100 years' experience as a safe and effective Medicine.

Sold universally by Chemists and Patent Medicine Dealers.

WHOLESALE AND EXPORT ORDERS SUPPLIED FROM THE MANUFACTORY—
11 RUSSELL STREET, DOWNING STREET, MANCHESTER.
SHOW CARDS AND BILLS ON APPLICATION.

CHEMISTS' FANCY GOODS ON CARDS.

Very Attractive. Sure to Sell.

THE "CHALLENGE" COMB.
Strong Vulcanite.

Retail ..	4*d.*	6*d.*	1/-
Per doz. ..	2/9	4/-	8/-

THE "GUARANTEED" COMB.
British Manufacture.

1/- Assorted Horn, each in envelope. Per doz. 7/6

6*d.* **METAL COMBS.** Per doz. 3/3
4*d.* " " " 2/9

2*d.* **GUM RINGS,** Bone. Per doz. 1/3

SMELLING SALT BOTTLES.
Crystal Glass, Midget Bottles for Glove. Per doz. .. 3/9

CHINA BOTTLES.
Pansy Decoration or Heart Shape. Per doz. .. 4/3

PERFUMES.
2*d.* Assorted. Per doz. .. 1/3
2*d.* Musk Lavender. Per doz. 1/2
3*d.* Assorted. Per doz. .. 1/10

6*d.* **SOOTHERS,** Bone or Rubber Ring. Per doz. .. 2/9

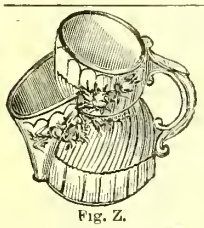


Fig. Z.

SHAVING MUGS.

		Per doz.
White and Gold	New shape, Fig. Z. ..	6/-
Floral	New shape, Fig. Z. ..	7/-
1*s.* Globular shape		7/6
6*d.* Mug shape		4/-

Bathing Caps, Sponges, Sponge Bags, Flesh Straps, Loofahs, &c., &c., kept in stock.

F. NEWBERY & SONS are prepared to receive orders for General Winter Goods, such as

CHEST & LUNG PROTECTORS, BRONCHITIS KETTLES, RESPIRATORS, WINTER SOCKS,

FOOT WARMERS, STOMACH WARMERS, INHALERS, ETNAS, ETC., ETC.

F. NEWBERY & SONS,
Druggists' Sundriesmen,
1 & 3 KING EDWARD ST., LONDON, E.C.

SHIRLEY'S
A1 CORNER

A Novelty! Charming Line! Going Well!

Menthol Cone, flat shape, in pink and white CELLULOID CASES, with directions on lid in Aluminium, which does not tarnish.

No. 41.—6*d.* size, 1 dozen in Glass Top Box ... 3/9 dozen.
No. 41L.—1/- " ½ " " " " ... 6/9 "

This pattern can be had with or without the A1 Brand on.

ORDER AT ONCE.

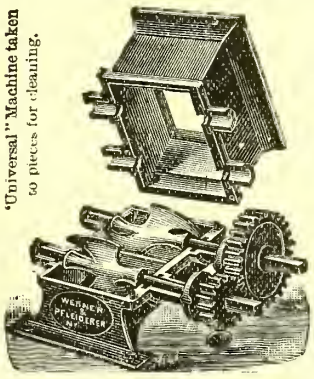
DAINTIEST PATTERN OUT.

3d. May Blossom & White Rose, "Etienne's."

THE SCENT OF THE SEASON.

Attractively put up, labels bearing photographs of Princess May and Duke of York. 2/- dozen; 21/- gross.

SHIRLEY BROTHERS,
105 WHITECROSS ST., E.C.



'Universal" Machine taken to pieces for cleaning.

Size 3, Type I., for 1-lb. Mass.

THE "UNIVERSAL"
Kneading & Mixing Machine,

Used by all the largest Pill Makers.

SUITABLE ALSO FOR

OINTMENTS, POWDERS, AND MASSES of any Consistency.

PILL MASSING MACHINES.

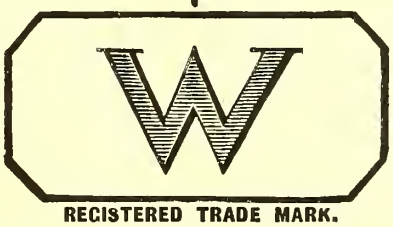
PILL PIPERS, CUTTERS, ROUNDERS, COATERS, "SPIRAL BRUSH" POWDER-SIFTERS (WITH INTERCHANGEABLE SIEVES), AND EVERY ACCESSORY FOR THE PILL ROOM.

WERNER, PFLEIDERER & PERKINS (LIMITED),
43 Regent Square, GRAY'S INN ROAD, W.C.
SHOWROOMS:—117 QUEEN VICTORIA STREET, E.C.
Contractors to the War Offices of all the Great Powers & other Governments.

THE FINEST BOTTLES IN THE MARKET, WITH WORLD-WIDE REPUTATION, ARE BRANDED THUS.

SPECIALITIES.

Best Dispensing Bottles in all Shapes, including Round-cornered, and any Fancy or other Shapes for Proprietary Articles.



RECISTERED TRADE MARK.

SPECIALITIES.

Hand-made Rounds, Opal, Flint, and Turquoise Boxes.

Every attention given to any coloured and special-shaped Bottles.

White Flint, Blue Tint, Green Tint, Rich Dark and Pale Amber, Jet Black, Actinic Green, and all shades of Blue.

WHOLESALE ONLY.

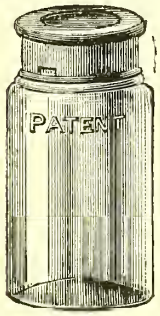
HEARN'S BOTTLES

ARE THE BEST IN THE MARKET.

BOTTLES, &c., of ANY SHAPE OR COLOUR, at the most Reasonable Prices.

HEARN, WRIGHT & CO. (Late E. A. Hearn & Co.), Wholesale & Export Glass Bottle Manufacturers, Eclipse Glass Works, Chatsworth Road, Clapton, **London, E.**

R. H. BARRETT'S PATENT CAPPED BOTTLE.



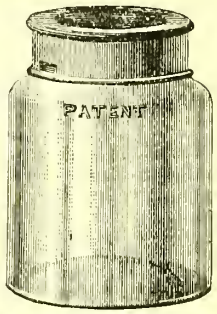
THE ONLY REALLY PERFECT BOTTLE FOR VASELINE, POMADES, DRY POWDERS, ETC.

NOTICE REDUCTION IN PRICES.

PRICES (in 5-gross Lots):—Fitted with STRONG METAL CAPS, CORK-LINED, in various colours, very attractive in appearance—1 oz., 10/6; 1½ oz., 11/-; 2 oz., 11/6; 3 oz., 13/6; 4 oz., 15/6 per gross.

CHEMISTS' AND PERFUMERS' BOTTLES IN GREAT VARIETY, PLAIN OR STOPPERED.

R. H. BARRETT,
FLINT GLASS BOTTLE WORKS,
THE OVAL, CAMBRIDGE HEATH, LONDON, E.
Telegraphic Address—"FOREFRONT LONDON." [2]



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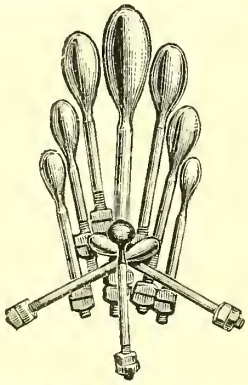
SPECIAL SHAPES AND SIZES MADE TO ORDER.



STANDARD SIZES KEPT IN STOCK.

PARTICULARS AND PRICES ON APPLICATION.

Sole Licensees for Manufacture and Sale of McFerran's Improved Automatic Machinery for Making

COMPRESSED TABLETS

Of various shapes and sizes, from ¼ gr. upwards. Nos. 4 and 5 Machines have been specially designed for Retail Druggists.
POWDERS NEED NOT BE GRANULATED.

REDUCED PRICE LIST.

Special Machines Manufactured to Contract for Inventors and Merchants.

JOHN HOLROYD & CO., Limited,
HULME, MANCHESTER.
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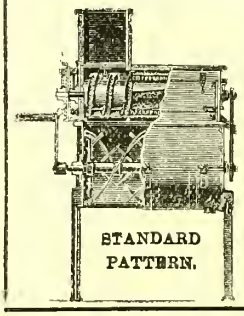
HUNDREDS OF
GARDNER'S PATENT
"RAPID" SIFTERS & MIXERS



Now working in Almost Every Trade where DRY POWDERS are Sifted and Mixed and Lumps Reduced.
All being done at one operation.

Prices from 50s. to £90.

WM. GARDNER,
Engineering Works,
GLOUCESTER.

GLASS BOTTLES

GOOD AND CHEAP.

From Stock in London or direct from the works.

THE NEW SHAPE FLATS,
With rounded edges, or the ordinary kind, plain or graduated.
3 and 4 ounce .. .. 8/- per gross.
6 and 8 ,, ... 9/- ,,

WHITE MOULDED PHIALS.

½ oz.	1 oz.	1½ oz.	2 oz.
3/6	3/9	4/6	5/3 per gross.

PANEL BOTTLES.

2 oz.	4 oz.	6 oz.	8 oz.
7/-	8/-	9/-	9/- per gross.

SPECIAL NOTICE.—Six gross and upwards of assorted sizes sent Carriage Free to any part of England. Smaller quantities not carriage paid. Sample Bottle sent free on application.

I. ISAACS & CO., Glass Bottle Manufacturers,
Francis St., Tottenham Court Road, LONDON, W.C.
Established 50 Years Bankers—London and Westminster Bank.

CARD SPACES.

FOR TERMS APPLY TO THE PUBLISHER.

GEORGE HAYNES & CO.
Hampstead Cotton Mills, Stockport,
MANUFACTURERS OF
BLEACHED & ABSORBENT COTTON WOOLS
GREY WOOL, COLOURED WOOLS, & JEWELLERS' SHEETS
THREE GOLD MEDALS, TWO SILVER MEDALS, AND DIPLOMA OF HONOUR
The Highest Awards given to any Cotton Wool Manufacturers.
Telegraphic Address—"HAYNES STOCKPORT."

PRECIPITATED CHALK, WHITEST PUREST.
CHEAPEST SELLERS IN THE MARKET.
ALSO CHEMICALS, DRUGS, AND OILS.
APPLY TO
AUG. LEVERMORE & CO., 8 LIME STREET, LONDON, E.C.

EWALD HILDEBRAND,
ARMY CONTRACTOR.

No. 680, 12s. per dozen, guaranteed
HALLE a/S. GERMANY.

EADE'S
GOUT and RHEUMATIC PILLS
Are the safest and most effectual remedy advertised for
GOUT, RHEUMATISM, AND ALL MUSCULAR PAINS.
GEORGE EADE, 72 GOSWELL RD., E.C.
Counter Bills and Show Cards on application.

BLAUD'S PILLS *(Best Quality, Soluble Coating).*
10-gross Tins, carriage paid, for 4/6. Cash with order.
7-lb Tins (56 gross), carriage paid, for 21/-. Cash with order.
COMP. SULPH. LOZ. (Garrod's Formula) **& TABLETS.**
4 lbs., carriage paid, for 4/-. Cash with order.
7 lbs., carriage paid, for 6/6. Cash with order.
SPECIAL QUOTATIONS FOR LARGE QUANTITIES.
JAMES N. DAVIDSON & GRAY, CHEMISTS, DUNDEE.

OXONIA
The New Lotion for Rodent Ulcer, Cancer of Tongue, Lips, Lupus, Ringworm, Varicose Veins, &c.
Retail, 2/9 per Bottle. Trade, 23/- per dozen, subject.
THOMAS CHRISTY & CO., 25 Lime Street, LONDON, E.C.

COFFEE.
THE "ORIGINAL CANISTER" & ROASTED COFFEES
These Coffees have been before the Public for nearly 50 years, and are the very best of their kind.
WHITE, FAIRCHILD & CO., 30 Gt. Tower St., E.C.
ESTABLISHED 1847. AGENTS WANTED.

EVERY CHEMIST
SHOULD STOCK
HEALD'S DOG MEDICINES.
They command a ready sale everywhere.
Address—HEALD, BURNHAM, BUCKS.

E. H. THIELLAY'S (Registered 1867)
EUCALYPTIA.
From "Eucalyptus Globulus." An authentic regenerator of the hair, instantly stopping its falling off, and is invaluable for hairdressing; a safeguard in epidemic times, protectingly surrounding the respiratory functions from malarious and vitiated emanations. In Bottles at 2/6, 3/6, 4/6, 7/-, 10/-, &c.
All Wholesale Houses, or direct from
E. H. THIELLAY
Parfumeur-Chimiste, Amersham Park, New Cross, LONDON.
(SHOW ROOMS AT CHARING CROSS HOTEL.) [2]

NESS & COMPANY, DARLINGTON.
Old-established Manufacturers and Exporters of Insecticidal, Disinfectant, and Deodorising Preparations (Three Gold Medals for Excellence).
Will send to any address Particulars and Samples of their Powerful
SHEEP DIPS AND DISINFECTANTS.
World's Fair, Chicago, Stand 293, British Section, Manufactures Building.

"SILVERY WHITE GUTTA PERCHA ENAMEL"
TRADE MARK.
TOOTH STOPPING

Registered—No. 3746.
P. A. STEVENS, Surgeon-Dentist,
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SOLE PROPRIETOR AND MANUFACTURER.
Special Terms to Wholesale Houses for Sheet or Sticks stamped with their own name
A sample box of 3d. sticks sent post free for 12 stamps. Price list and sample free.

Fletcher's Hydrobromates
Supplied in Original Bottles ready for Patient's use (stamped), to retail at 4/6 each; also in 1-lb. Bottles for Dispensing, by the Sole Manufacturers:—
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Bromley's Gout & Rheumatic Pills *Estab.* 1807. WILL CURE.
FREE Printing of Chemists' own Circulars.
☞ READ DIARY, PAGE 406.
Voted 5th out of 500 representative firms' announcements as most useful and most likely to bring best results.
Awaiting your esteemed reply to-day, with copy for Hand-bills or Labels.
CHEAPEST. *Retail Profit* £1 on £3.
Full retail prices absolutely guaranteed.
SIR THOMAS'S BUILDINGS, LIVERPOOL, ENGLAND.

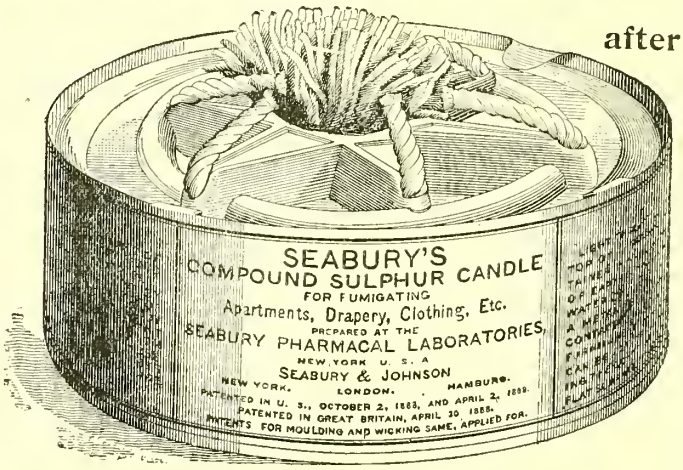
HAND-PICKED GUM ARABIC.
Wholesale and Export Druggists before buying elsewhere should apply to
FREDK. FINK & CO.
10 & 11 MINCING LANE, LONDON, E.C. [2]

IMPORTANT.—Seabury's are the original and only genuine SULPHUR CANDLES, and are incomparably superior to all other articles of the kind.

Seabury's Sulphur Candles

are the safest, surest, and most convenient form in which Sulphur can be burned indoors, for

DISINFECTION BY FUMIGATION



after **CHOLERA,**
Diphtheria,
Scarlet Fever,
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Typhoid Fever,
and other
Infectious Diseases.

Seabury's Sulphur Candles are now very generally adopted by Boards of Health in England and America. Used to fumigate the ROYAL COURTS OF JUSTICE, Committee Rooms of the HOUSES OF PARLIAMENT, and the WAR OFFICE.

No difficulty in Burning. One Candle will burn for two hours—thoroughly disinfecting Rooms, Furniture, and Drapery. Will destroy all noxious Vapours from Drains and Sewers.

SEABURY'S SULPHUR CANDLES GIVE INVARIABLE SATISFACTION TO THE USERS.

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